

# NEW STREET ROADWAY CONSTRUCTION & PETRONELLI WAY IMPROVEMENTS

PLAN OF  
NEW STREET & PETRONELLI WAY

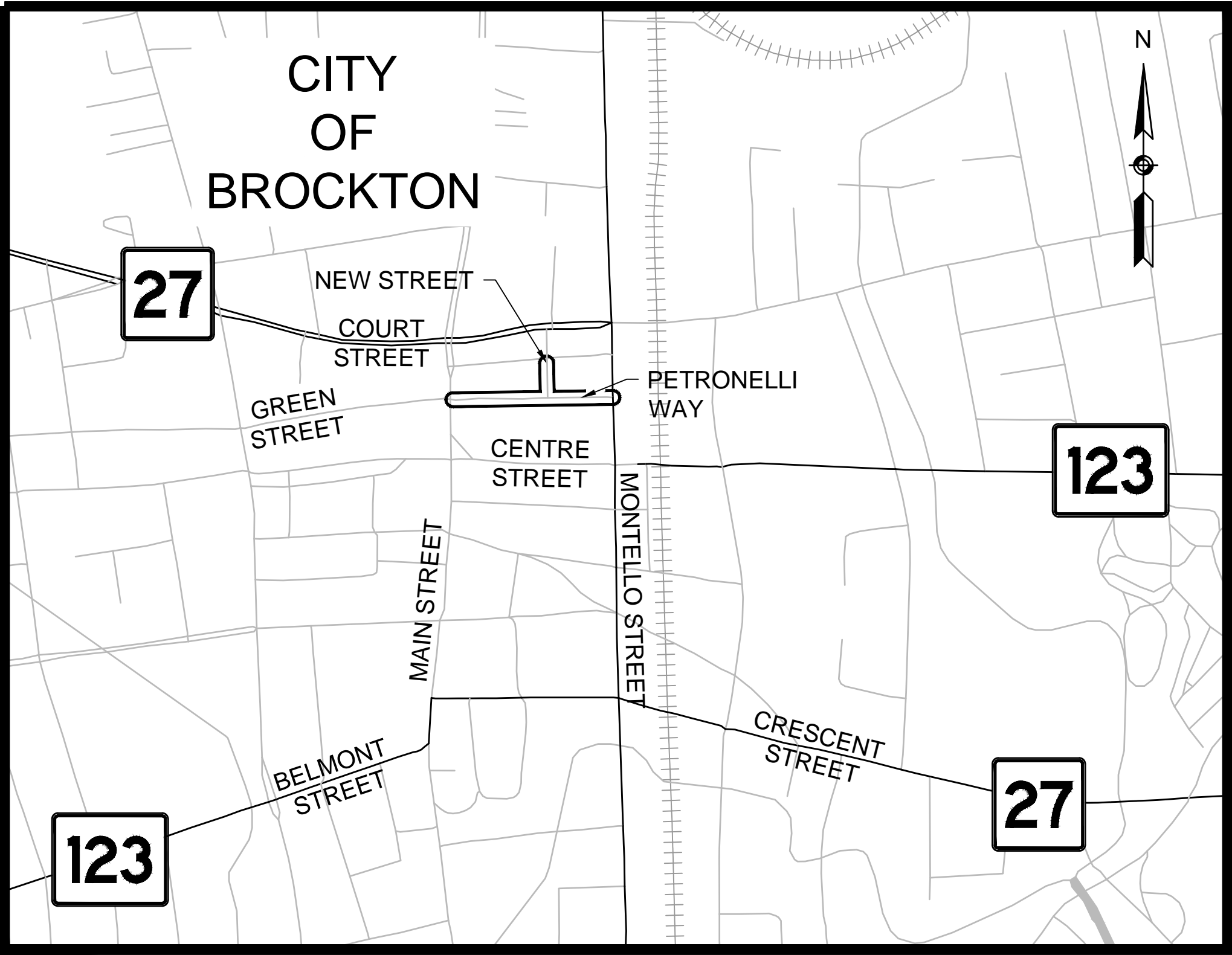
IN THE CITY OF  
BROCKTON  
PLYMOUTH COUNTY

PROJECT FILE NO. PED 18 - NEW STREET

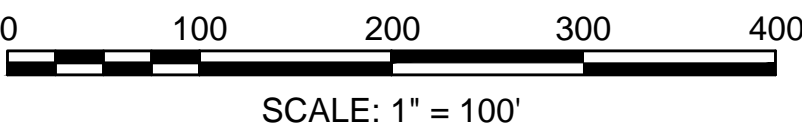
BROCKTON NEW STREET & PETRONELLI WAY			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	1	16
PROJECT FILE NO. PED 18 - NEW STREET			
TITLE SHEET & INDEX			

THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 2021 EDITION; THE 2019 CONSTRUCTION STANDARD DETAILS; THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS; THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS; THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS; THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH MASSACHUSETTS AMENDMENTS AND THE STANDARD MUNICIPAL TRAFFIC CODE; THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING; THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK; WILL GOVERN.

INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	SURVEY & GENERAL NOTES
3	LEGEND & ABBREVIATIONS
4	EXISTING CONDITIONS PLAN
5	TYPICAL SECTIONS
6	CONSTRUCTION PLAN
7	PROFILE
8	CURB TIE & ALIGNMENT PLAN
9	GRADING & DRAINAGE PLAN
10	LIGHTING & UTILITY PLAN
11	PAVEMENT MARKING & SIGNING PLAN
12 - 13	ADA ACCESS RAMP GRADING DETAILS
14 - 16	CONSTRUCTION DETAILS

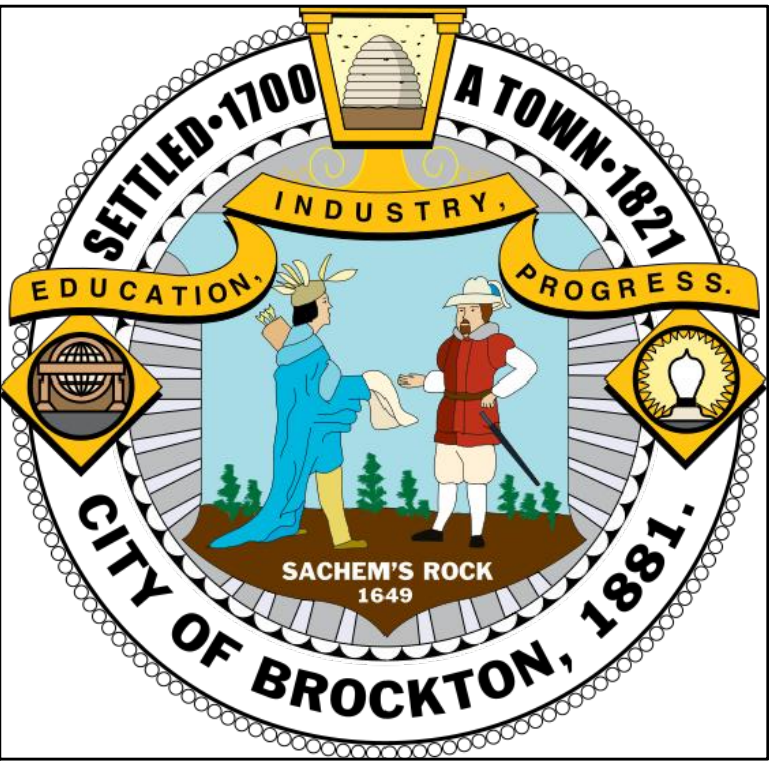


REVISED  
06/21/2021



LENGTH OF PROJECT

NEW STREET  
160.00 FEET = 0.030 MILES  
PETRONELLI WAY  
665.00 FEET = 0.126 MILES



NEW STREET ROADWAY CONSTRUCTION  
& PETRONELLI WAY IMPROVEMENTS

CITY OF BROCKTON  
BROCKTON, MA



<b>BSC GROUP</b> 803 Summer Street Boston, Massachusetts 02127	
DRAWN BY: KDL	CHECKED BY: PVR
SCALE: AS NOTED	PROJECT: BROCKTON
DATE: 11/28/2018	DWG. NO.: DWG_NO

SURVEY NOTES

- TOPOGRAPHY AND DETAIL ARE BASED ON AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY BSC GROUP, INC. IN JULY AND AUGUST OF 2018.
- PROVIDED CONTROL POINTS AND MONUMENTS WERE VERIFIED BY AN ON-THE-GROUND INSTRUMENT SURVEY FOR HORIZONTAL POSITION ONLY.
- COORDINATES ARE IN US SURVEY FEET, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD '83). ELEVATION ARE IN US SURVEY FEET, REFERENCED TO THE CITY OF BROCKTON BASE.
- NO EASEMENT RESEARCH WAS COMPLETED FOR THIS PROJECT. EASEMENTS SHOWN HERE ON ARE FROM PLANS WHICH WERE FOUND WHILE COMPILING PROPERTY LINES.

GENERAL NOTES

- FOUNDATIONS WITH MATERIALS SIMILAR TO THE EXISTING.
- EXISTING GROUND SURFACES SHOWN ON PLANS, PROFILES AND CROSS SECTIONS ARE BASED UPON DATA OBTAINED BY FIELD SURVEYS.
  - THE LOCATIONS OF EXISTING SUBSURFACE UTILITIES SHOWN ON THE PLANS WERE COMPILED FROM AVAILABLE RECORD DRAWINGS AND ARE NOT WARRANTIED TO BE CORRECT. THE LOCATIONS ARE APPROXIMATE ONLY AND IN SOME CASES MAY BE INCOMPLETE. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES REQUIRED AND VERIFY THE LOCATIONS OF ALL EXISTING SUBSURFACE UTILITIES PRIOR TO PERFORMING ANY WORK.
  - PRIOR TO THE INSTALLATION OF PROPOSED UTILITIES, THE CONTRACTOR SHALL EXCAVATE TEST PITS AT LOCATIONS OF UTILITY CROSSINGS TO VERIFY DEPTHS OF EXISTING PIPES, CONDUITS OR OTHER FACILITIES AS DIRECTED BY THE ENGINEER.
  - EXISTING WATER BOXES AND CURB STOPS, FIRE ALARM, SEWER AND SURFACE DRAIN MANHOLE FRAMES AND COVERS, CATCH BASIN FRAMES AND GRATES AND OTHER CASTINGS SHALL BE ADJUSTED TO LINE AND/OR GRADE AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
  - ALL EXISTING BROKEN OR DAMAGED SERVICE BOXES AND GATE BOXES WITHIN THE PROJECT SITE SHALL BE REPLACED WITH NEW STRUCTURES IN ACCORDANCE WITH THE CITY OF BROCKTON WATER DEPARTMENT STANDARDS AND AS REQUIRED BY THE ENGINEER.
  - ALL GAS GATES, ELECTRIC MANHOLES AND TELEPHONE MANHOLES WITHIN THE LIMITS OF WORK SHALL BE ADJUSTED BY THE OWNING AGENCY, UNLESS OTHERWISE INDICATED ON THE PLANS. ALL GAS, ELECTRIC, TELEPHONE AND CATV WORK SHALL BE DONE BY THE OWNING AGENCY. THE CONTRACTOR SHALL NOTIFY THE OWNING AGENCIES TO ADJUST AND/OR RELOCATE THESE STRUCTURES TO AVOID IMPACTING THE CONTRACTOR'S SCHEDULE OF OPERATIONS.
  - ALL PROPOSED DRAINAGE CONNECTIONS TO EXISTING STRUCTURES WILL BE INCLUDED IN THE COST OF THE NEW PIPE.
  - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE UTILITY COMPANIES DOING WORK IN THE SAME AREA. THE CONTRACTOR SHALL ALLOW THE UTILITY COMPANIES AND THEIR REPRESENTATIVES TO ADJUST AND/OR INSTALL THEIR SYSTEMS WITHIN CITY/STATE OWNED STREETS AND EASEMENTS.
  - THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES WHEN THE INSTALLATION OF DRAINAGE LINES AND STRUCTURES ARE IN CLOSE PROXIMITY TO EXISTING UTILITY POLES.
  - THE CONTRACTOR SHALL COORDINATE WORK WITH THE OWNERS OF UTILITY POLES AND SHALL BE RESPONSIBLE FOR TRIMMING TREES AS NECESSARY TO ACCOMMODATE NEW UTILITY POLE LOCATIONS.
  - THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR TEMPORARY SUPPORT WHILE EXCAVATING IN CLOSE PROXIMITY OF UTILITY POLES, IF REQUIRED BY THE UTILITY, AT NO ADDITIONAL COST.
  - CURB SHALL BE FURNISHED AND SET AT LOCATIONS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
  - CONSTRUCT WALKS AND RAMPS AS SHOWN ON THE PLANS AND/OR AS REQUIRED BY THE ENGINEER.
  - EXISTING GRANITE CURB SUITABLE FOR REUSE WITHIN THE PROJECT SITE SHALL BE REMOVED AND RESET IN ACCORDANCE WITH THE PLANS AND/OR AS REQUIRED BY THE ENGINEER. EXISTING CURB CORNERS IN THE PROJECT SHOULD BE REMOVED AND DISCARDED.
  - SAW CUT EXISTING BITUMINOUS CONCRETE ROADWAYS, CEMENT CONCRETE SIDEWALKS AND BITUMINOUS CONCRETE DRIVEWAYS AS SHOWN ON THE PLANS AND AT THE PROPOSED MATCH LINE.
  - WHERE THE NEW CONSTRUCTION COINCIDES WITH PRESENT TRAVELED WAYS.

16.1. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THE TEMPORARY TRAFFIC CONTROL PLANS AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR WORK ZONES.

16.2. THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER ACCEPTABLE TO THE ENGINEER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO BUSINESS CONCERNS AND ABUTTERS, ON ACCOUNT OF THE CONSTRUCTION WORK, IS KEPT TO A MINIMUM.

16.3. THE CONTRACTOR SHALL NOT BE ALLOWED TO PARK EQUIPMENT OR STOCKPILE EQUIPMENT OR MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE.

16.4. THE CONTRACTOR SHALL MAINTAIN SAFE AND RESPONSIBLE ACCESS TO AND FROM ABUTTING PROPERTY PRIVATE WAYS, DRIVEWAYS AND ALL ALLEYS AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
  - THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED TO LOCATE EXISTING UTILITIES PRIOR TO TREE/SHRUB PLANTING. ROOT BALLS SHALL BE PLANTED A MINIMUM OF THREE (3) LATERAL FEET AWAY FROM GAS PIPES. CONTRACTOR SHALL REPORT ANY CONFLICTS BETWEEN TREE PITS AND EXISTING UNDERGROUND UTILITIES TO THE ENGINEER AND THE CITY TREE WARDEN FOR RESOLUTION.
  - THE CONTRACTOR SHALL DIG TEST PITS TO LOCATE EXISTING UTILITIES PRIOR TO INSTALLING LIGHT POLE FOUNDATIONS. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED A MINIMUM OF THREE (3) LATERAL FEET AWAY FROM GAS PIPES.
  - UNLESS OTHERWISE INDICATED ON THE PLANS OR REQUIRED BY THE ENGINEER, THE LIMIT OF WORK SHALL BE THE BACK OF EXISTING SIDEWALK. ANY DISTURBED LAWN AREAS ALONG THE BACK OF SIDEWALK SHALL BE LOAMED AND SEEDED, AS REQUIRED BY THE ENGINEER.
  - AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
  - ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
  - THE CONTRACTOR SHALL RESTORE ANY EXISTING SURFACE PAVEMENTS AND TURF WHICH IS TO REMAIN THAT IS DISTURBED BY THE PROPOSED WORK AND SHALL PATCH ALL HOLES RESULTING FROM THE REMOVAL OF



GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		MASONRY PLUG
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		COMPOST FILTER TUBES
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

TRAFFIC SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROLLER PHASE ACTUATED
		TRAFFIC SIGNAL HEAD (SIZE AS NOTED)
		WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)
		VIDEO DETECTION CAMERA
		MICROWAVE DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)
		RAILROAD SIGNAL
		SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)
		MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)
		HIGH MAST POLE OR TOWER
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		MAST ARM WITH LUMINAIRE
		OPTICAL PRE-EMPTION DETECTOR
		CONTROL CABINET, GROUND MOUNTED
		CONTROL CABINET, POLE MOUNTED
		FLASHING BEACON CONTROL AND METER PEDESTAL
		LOAD CENTER ASSEMBLY
		PULL BOX 12"x12" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)
-----		TRAFFIC SIGNAL CONDUIT

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT

BROCKTON  
NEW STREET & PETRONELLI WAY

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	3	16
PROJECT FILE NO. PED 18 - NEW STREET			

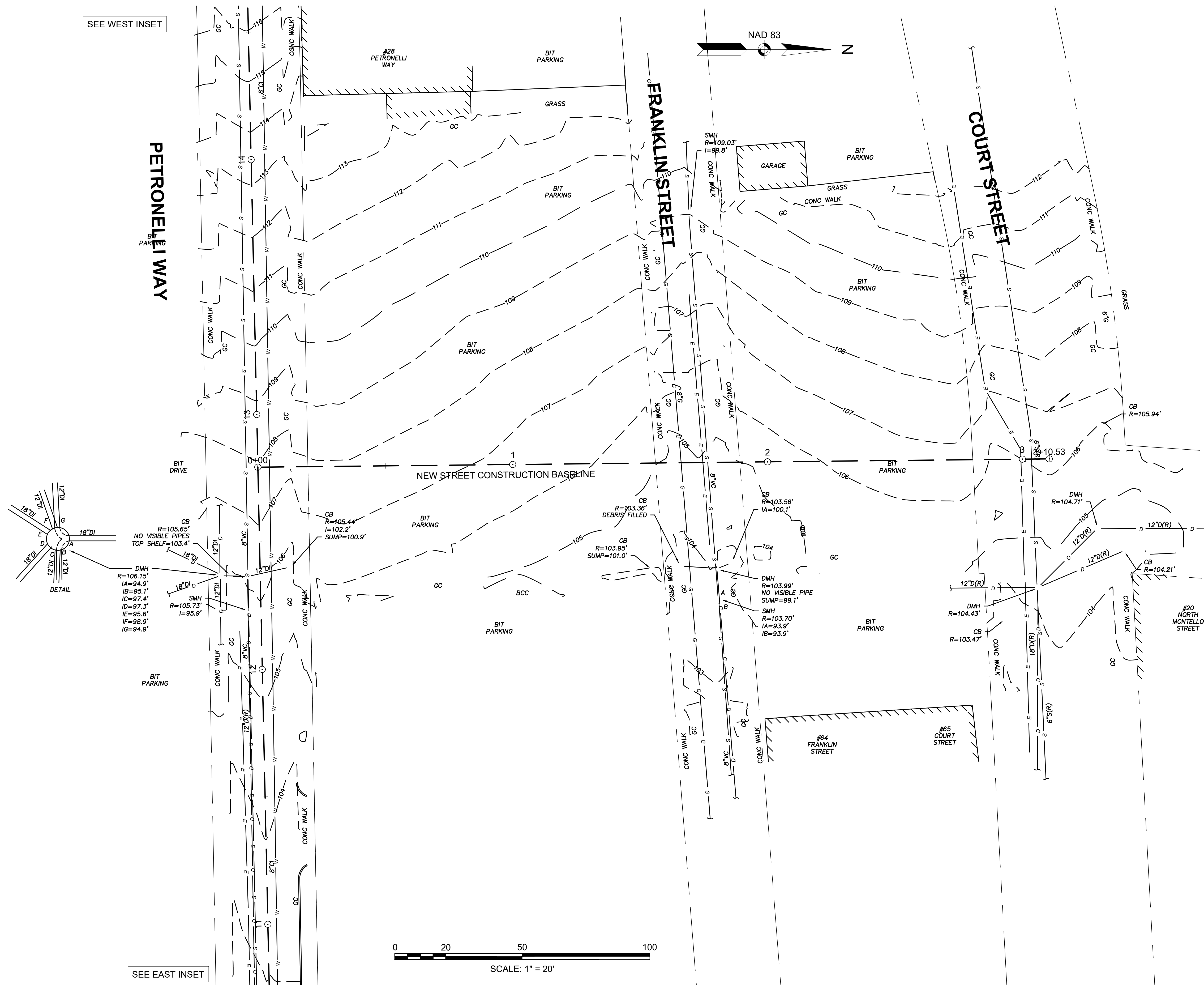
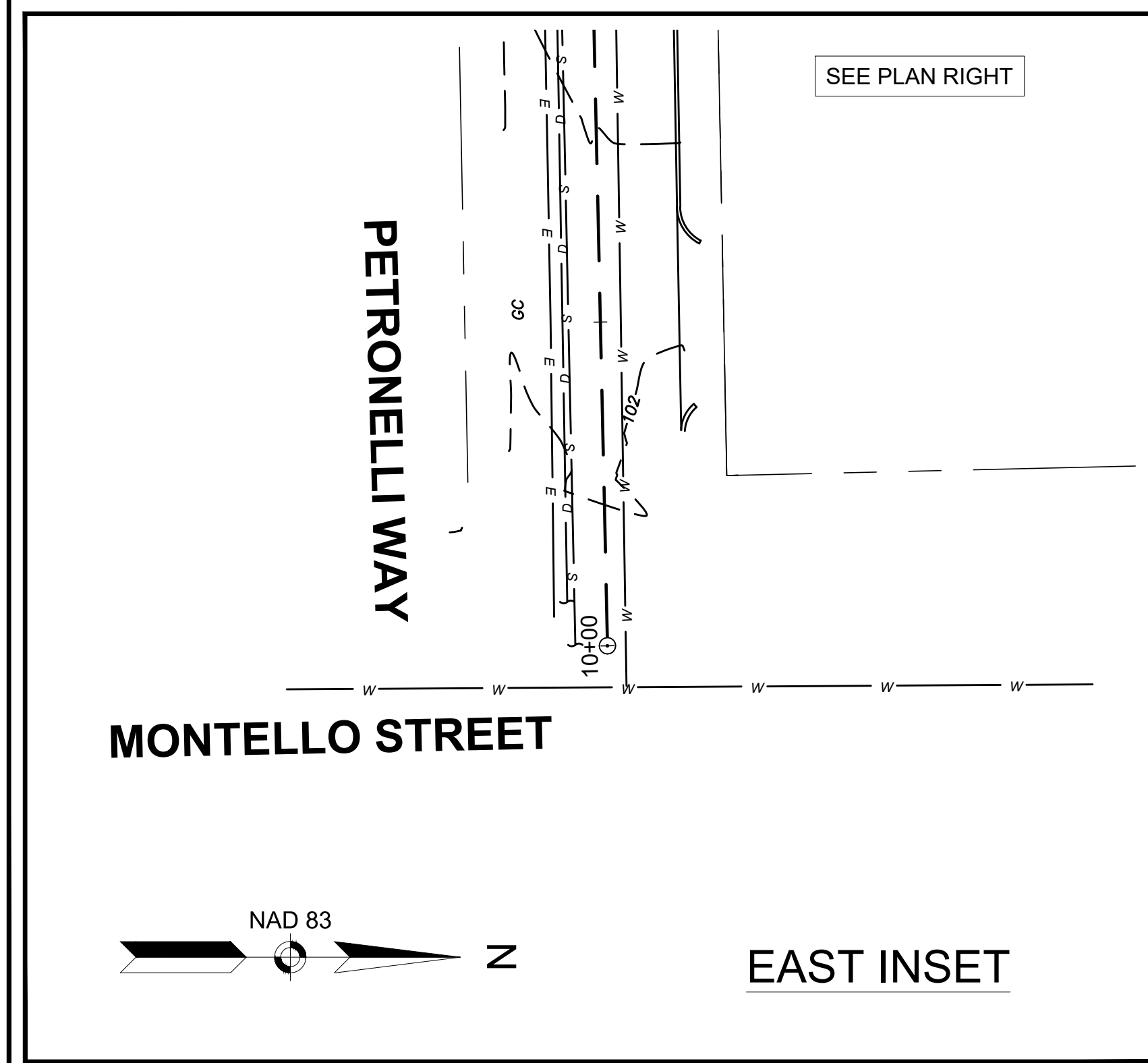
LEGEND & ABBREVIATIONS

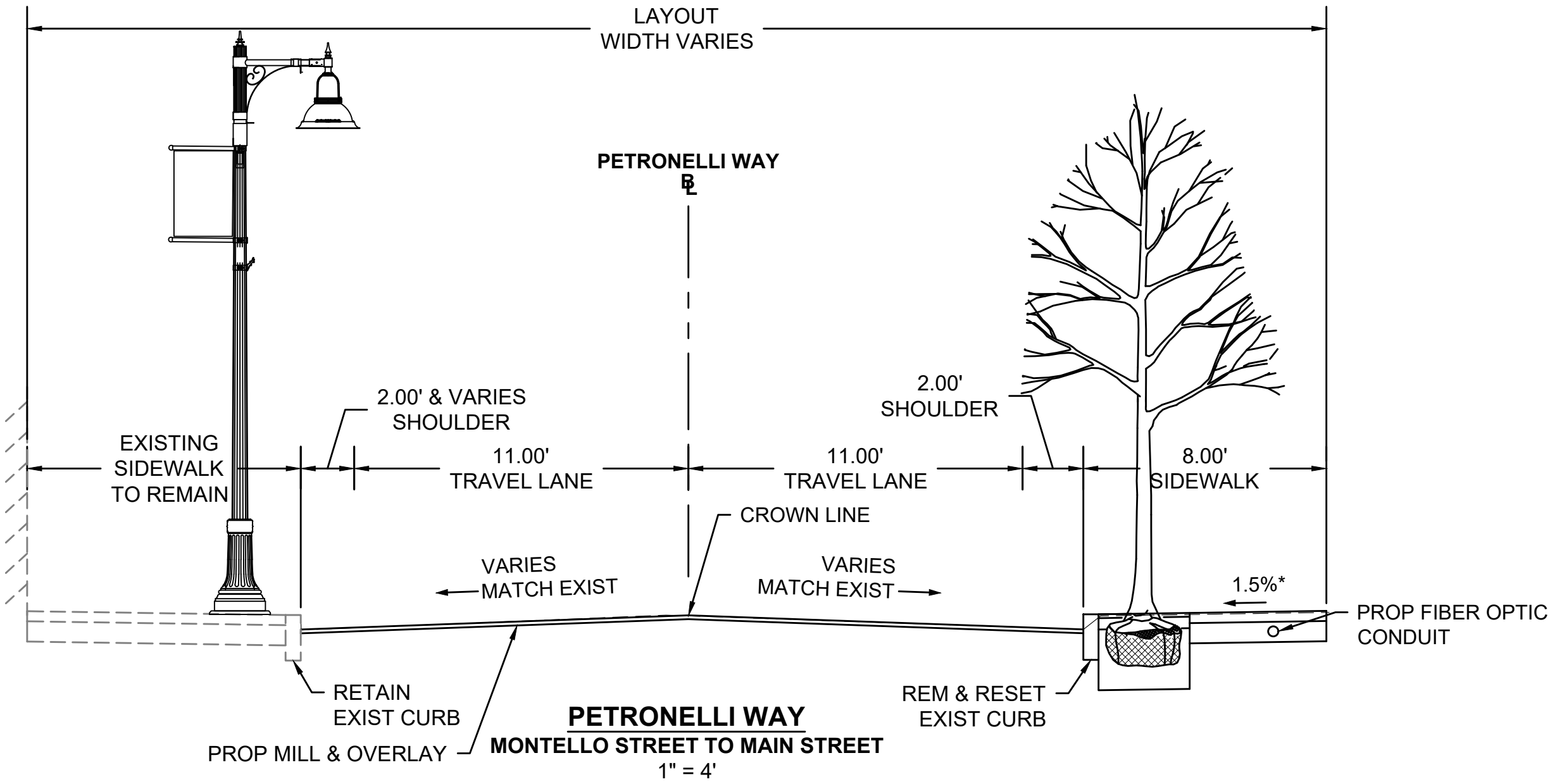
ABBREVIATIONS (cont.)

GENERAL	
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	STEADY DON'T WALK
FDW	FLASHING DON'T WALK
FR	FLASHING CIRCULAR RED
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
FY	FLASHING CIRCULAR AMBER
FYL	FLASHING AMBER LEFT ARROW
FYR	FLASHING AMBER RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
PED	PEDESTRIAN
PTZ	PAN, TILE, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	STEADY WALK
Y	STEADY CIRCULAR AMBER
YL	STEADY AMBER LEFT ARROW





PAVEMENT NOTES

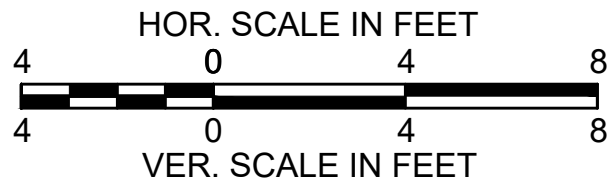
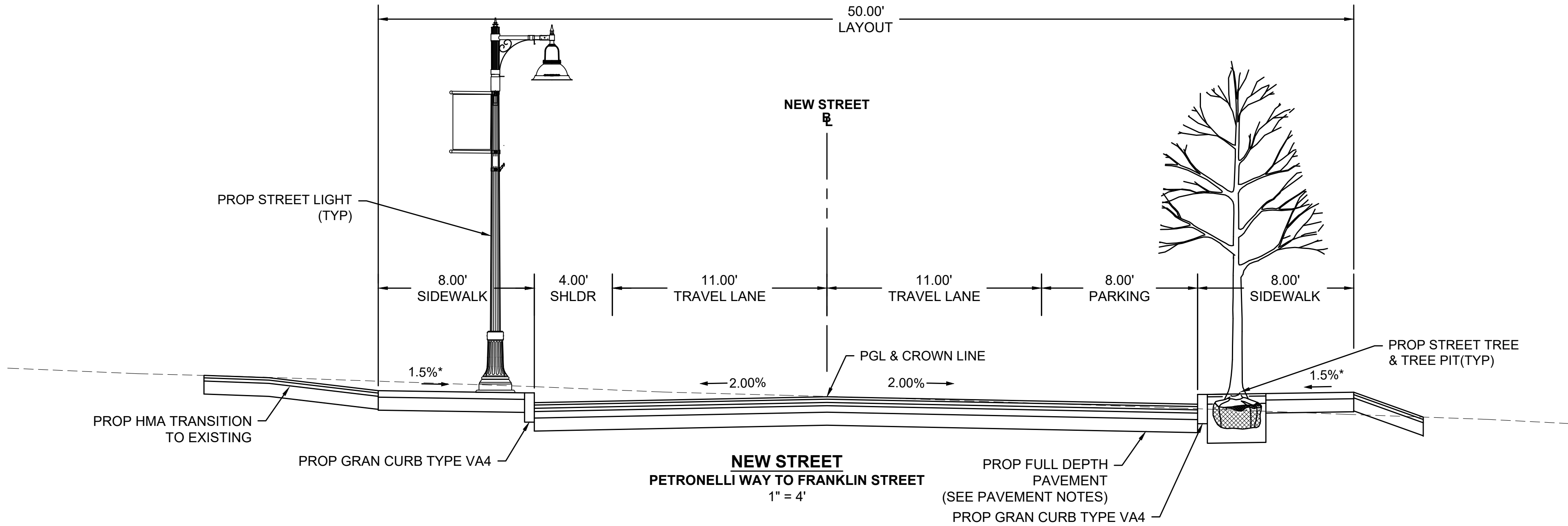
**PROPOSED FULL DEPTH PAVEMENT**  
SURFACE: 1 1/2" HOT MIX ASPHALT SURFACE COURSE OVER  
0.05 GAL/SY ASPHALT EMULSION FOR TACK COAT OVER  
BINDER: 2" HOT MIX ASPHALT BINDER COURSE OVER  
0.05 GAL/SY ASPHALT EMULSION FOR TACK COAT OVER  
2" HOT MIX ASPHALT BINDER COURSE OVER  
(\*TOTAL OF 4" BINDER COURSE IN 2 COURSES)  
SUB-BASE: 4" DENSE GRADED CRUSHED STONE OVER  
8" GRAVEL BORROW (M1.03.0 TYPE b)

**PROPOSED PAVEMENT MILLING AND OVERLAY**  
SURFACE: 1 1/2" HOT MIX ASPHALT BINDER COURSE OVER  
0.07 GAL/SY ASPHALT EMULSION FOR TACK COAT OVER  
VARIABLE DEPTH PAVEMENT MICRO-MILLING (MAX 1 1/2")

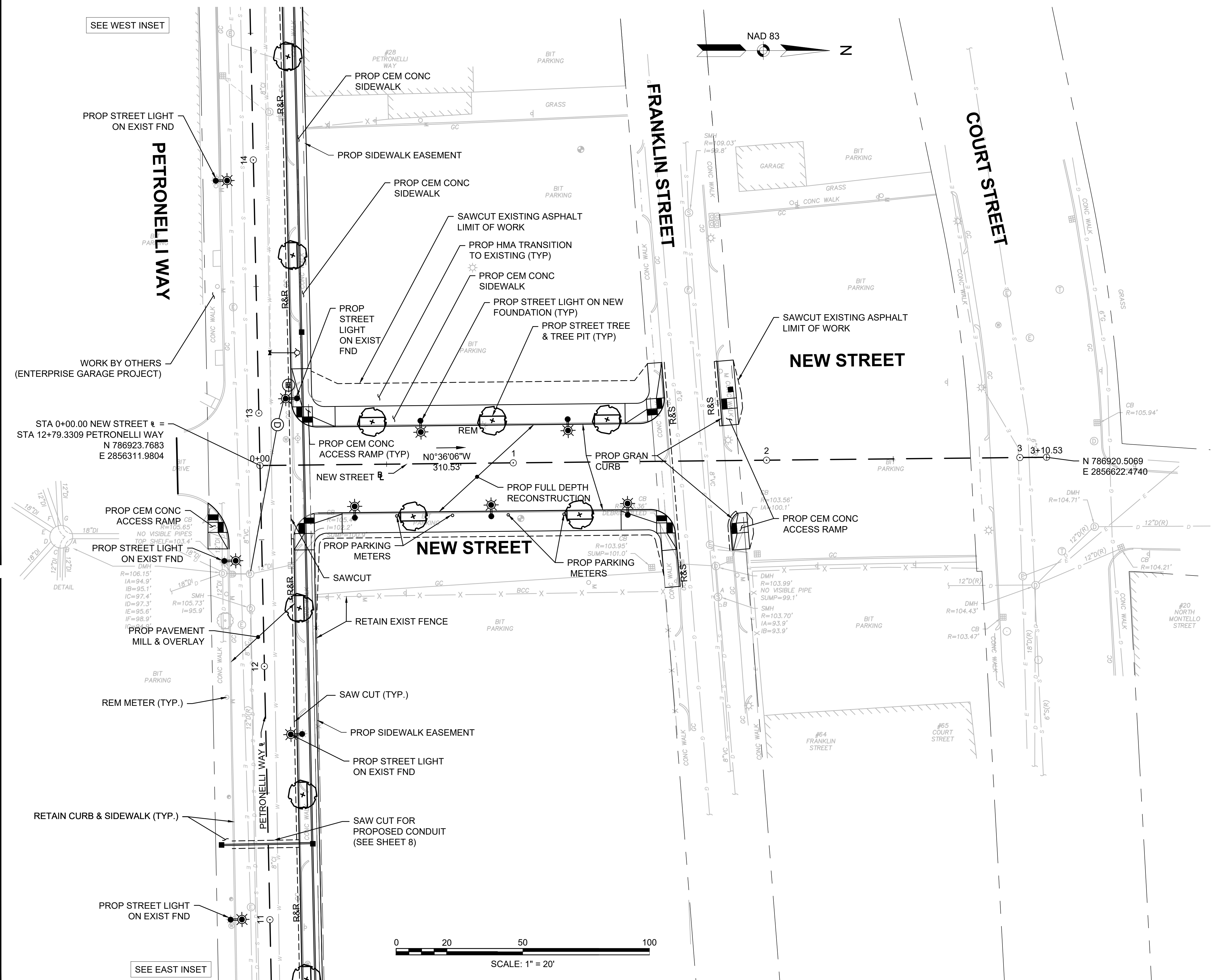
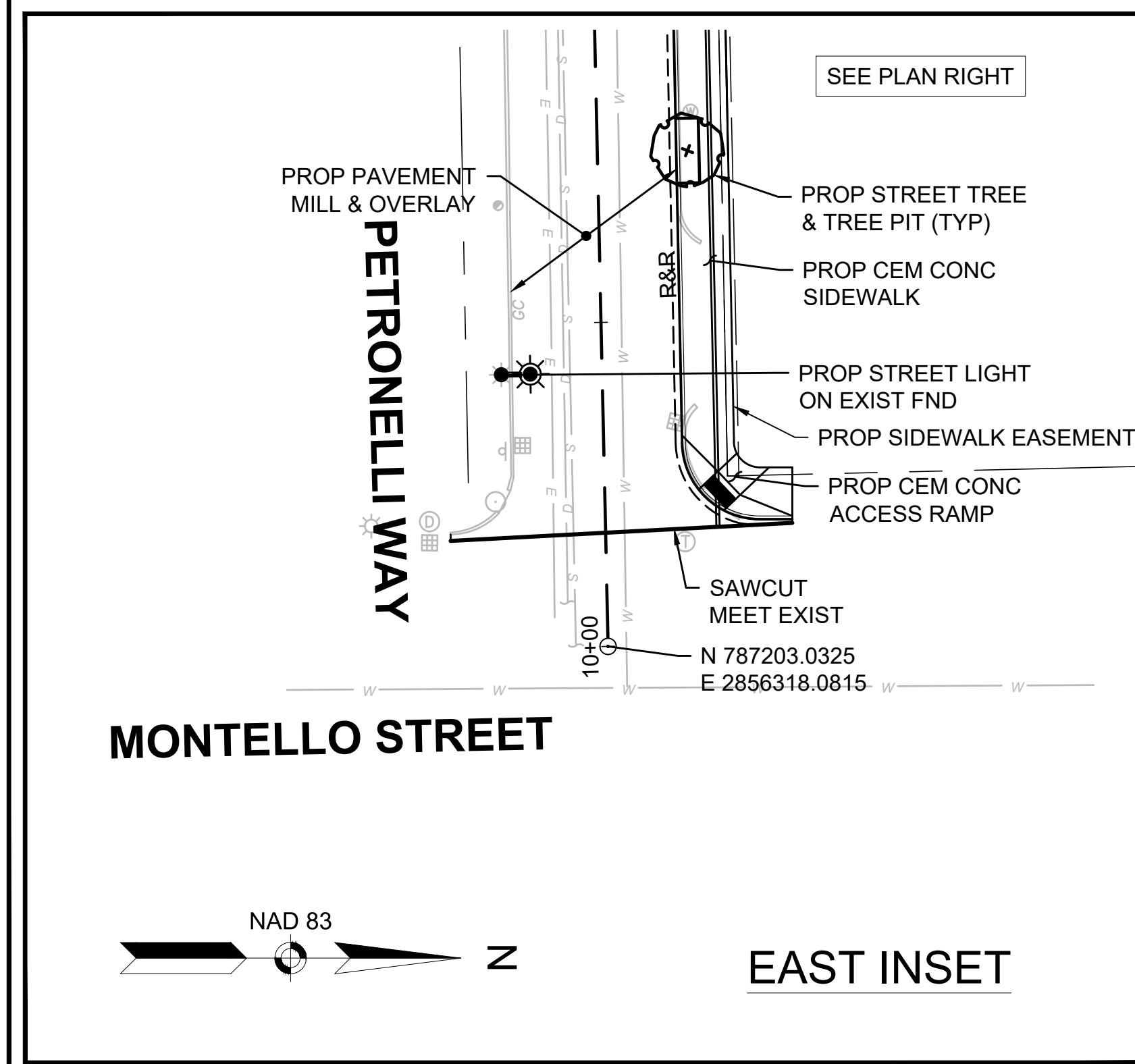
**PROPOSED CEMENT CONCRETE SIDEWALK / PEDESTRIAN RAMP**  
SURFACE: 4" CEMENT CONCRETE (AIR ENTRAINED 4,000 PSI, 3/4", 610) OVER  
FOUNDATION: 8" GRAVEL BORROW (M1.03.0 TYPE b)

**PROPOSED HOT MIX ASPHALT TRANSITION TO EXISTING**  
SURFACE: 1 1/2" HOT MIX ASPHALT SURFACE COURSE OVER  
0.05 GAL/SY ASPHALT EMULSION FOR TACK COAT OVER  
BASE: 2" HOT MIX ASPHALT BINDER COURSE OVER  
FOUNDATION: 8" GRAVEL BORROW (M1.03.0 TYPE b)

\* TOLERANCE FOR CONSTRUCTION ±0.5%





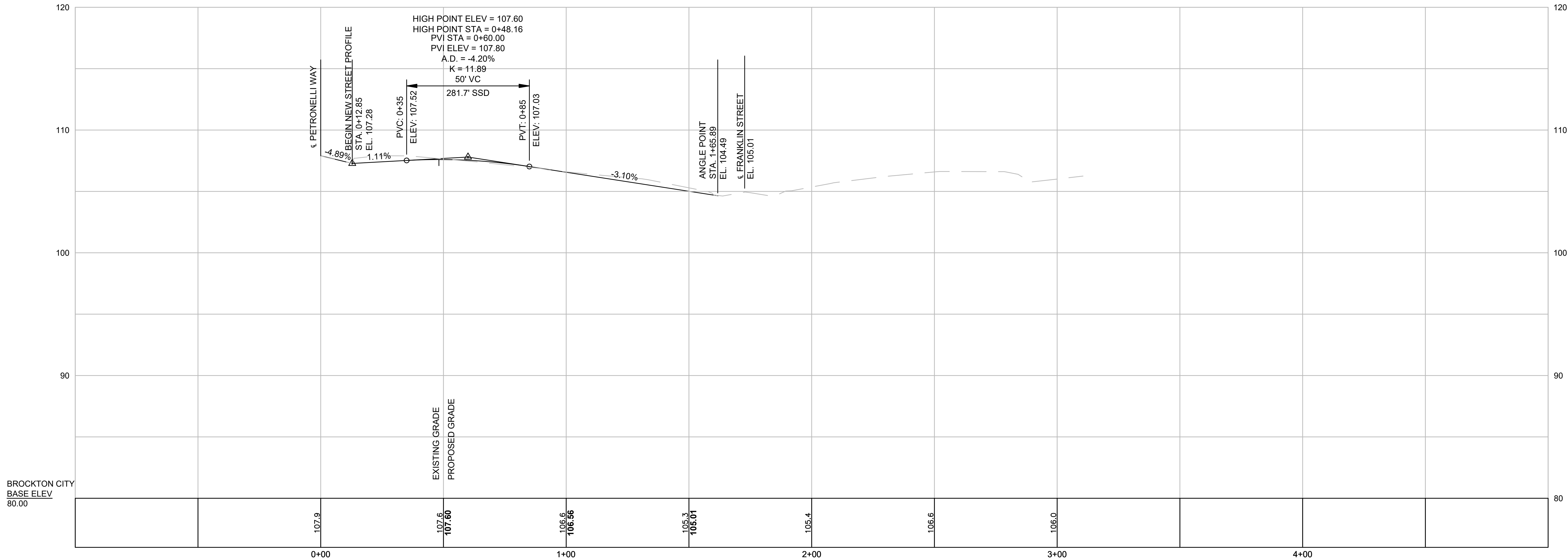


BROCKTON NEW STREET & PETRONELLI WAY			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	6	16
PROJECT FILE NO. PED 18 - NEW STREET			
<b>CONSTRUCTION PLAN</b>			

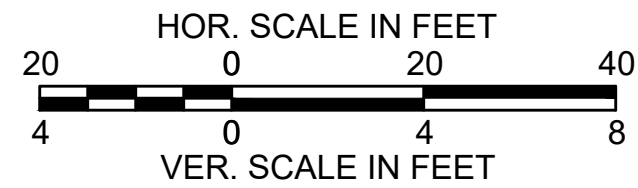
BROCKTON  
NEW STREET & PETRONELLI WAY

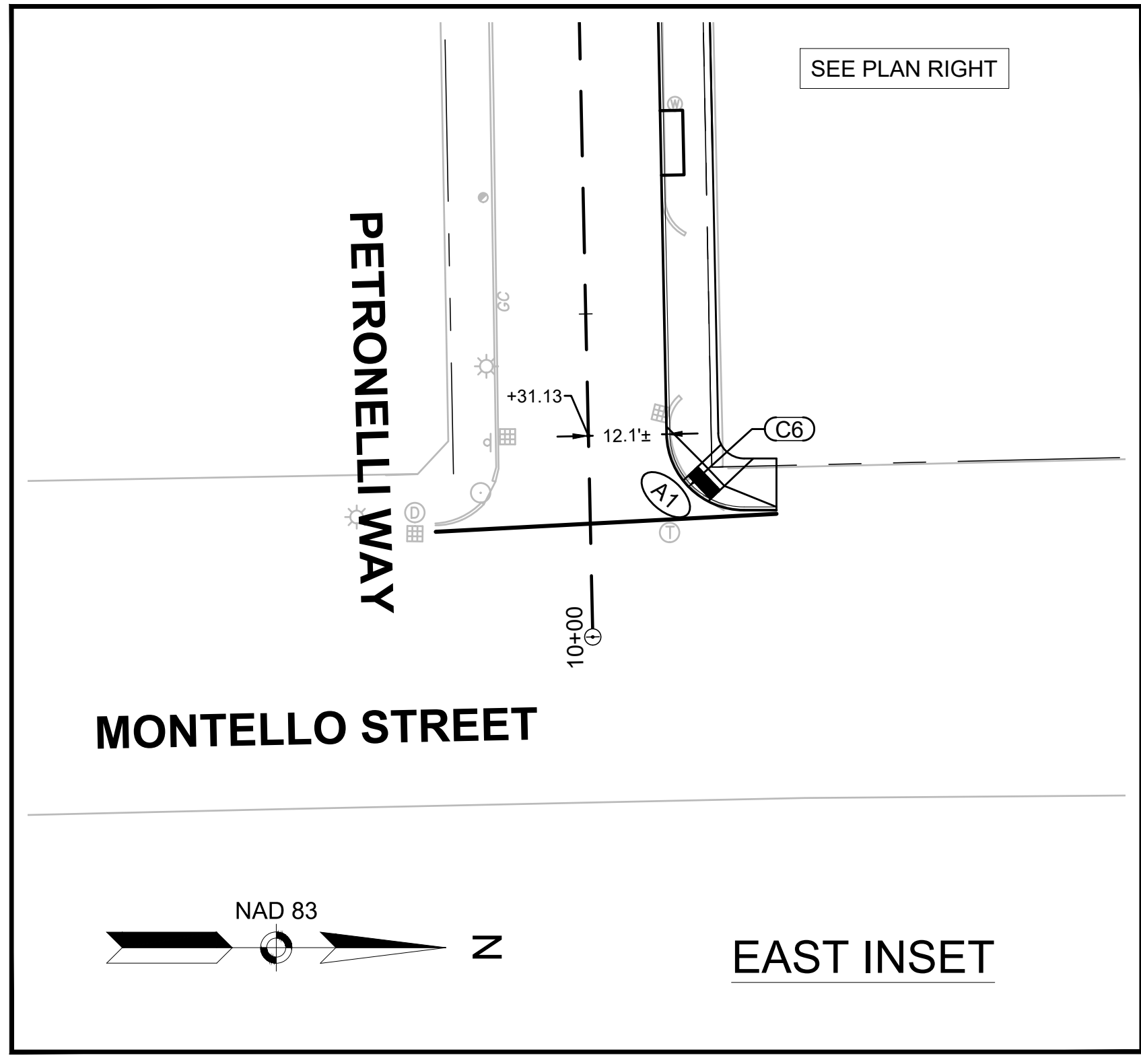
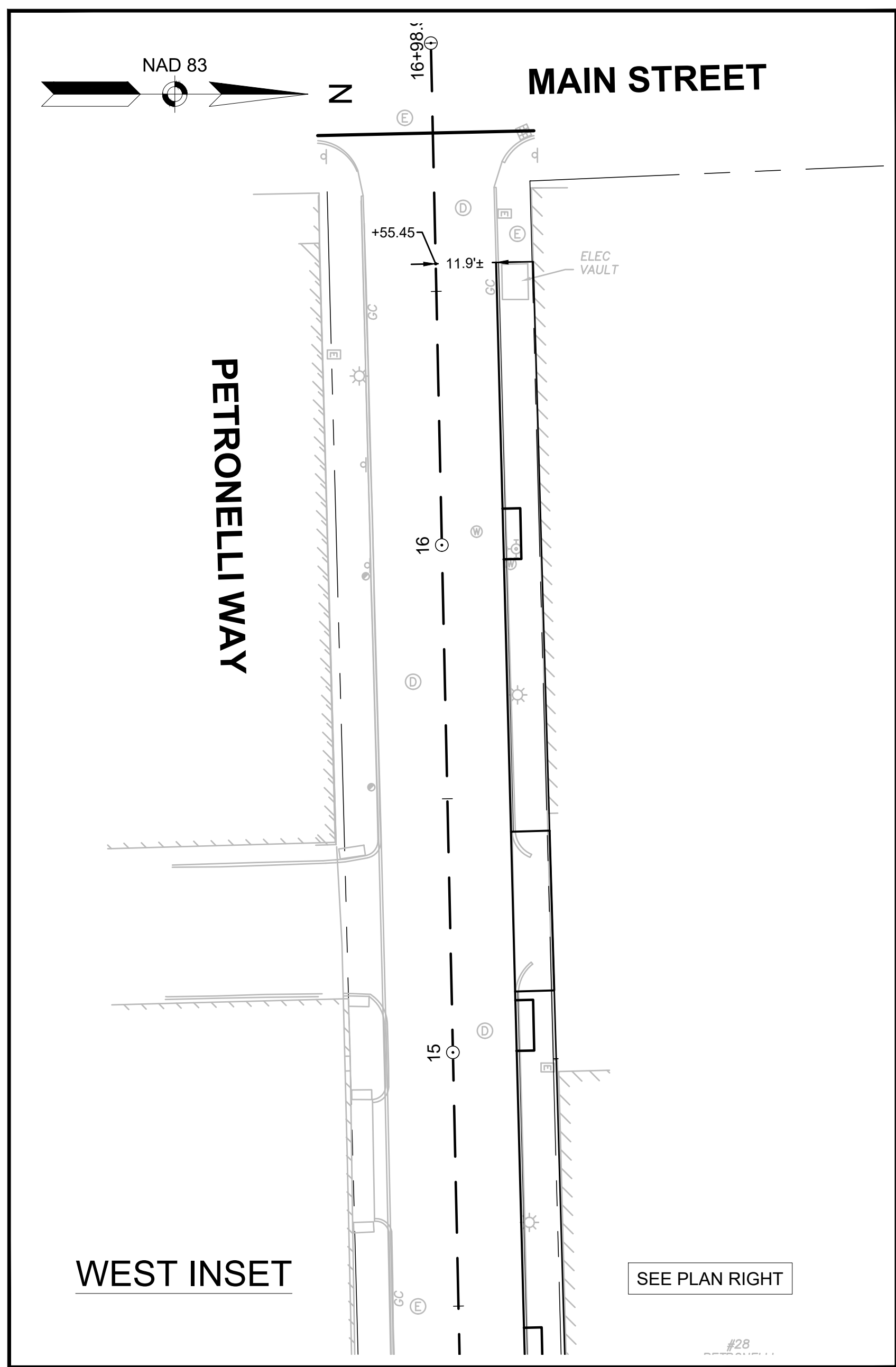
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	7	16
PROJECT FILE NO. PED 18 - NEW STREET			

PROFILE

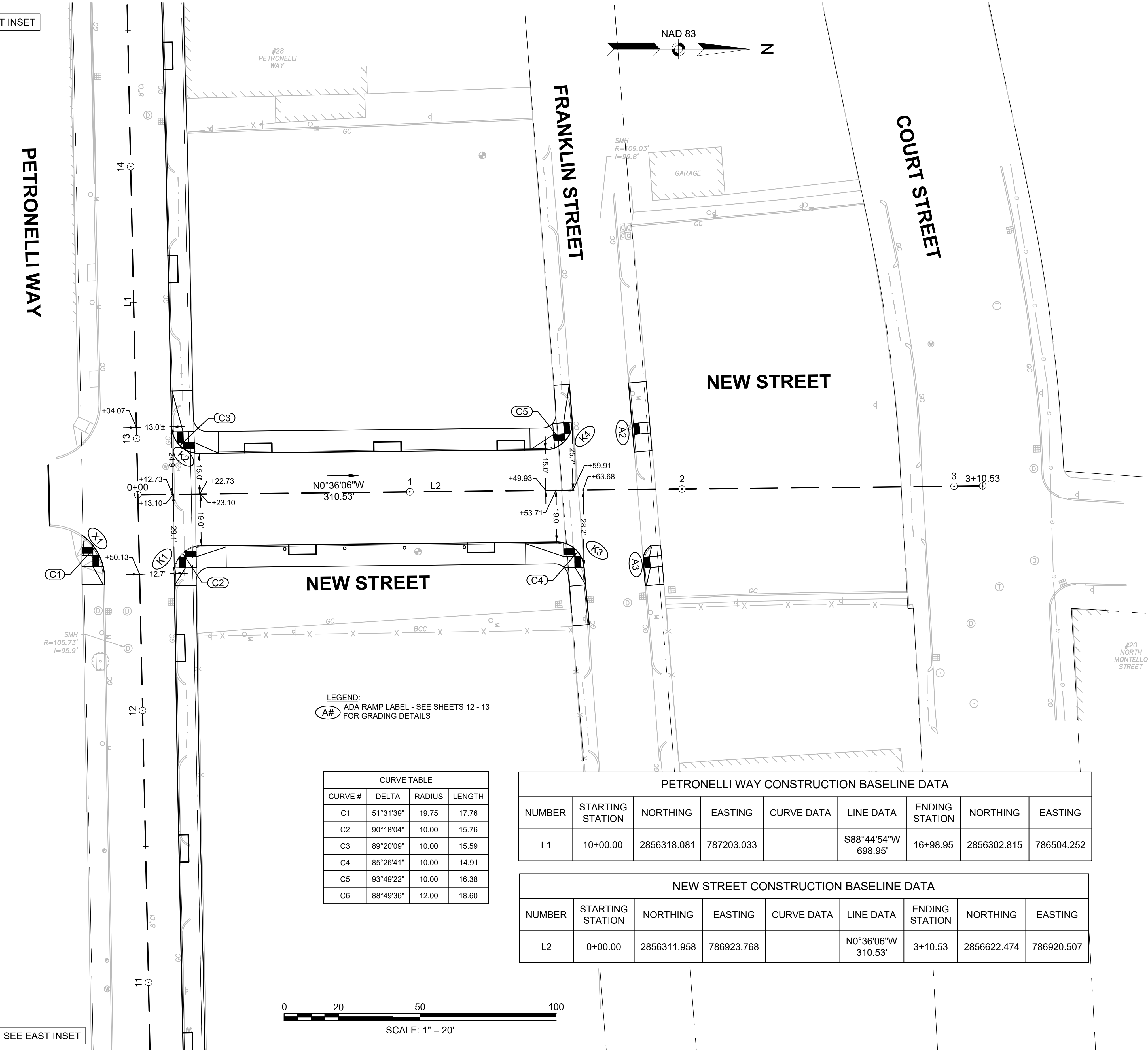


NEW STREET PROFILE  
SCALE: 1" = 20' HORIZONTAL  
1" = 4' VERTICAL



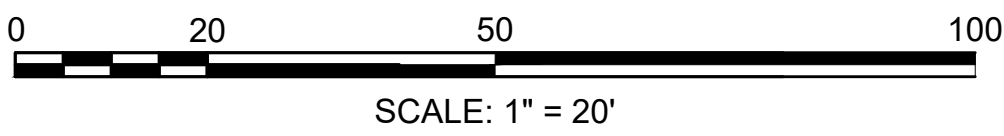


SEE WEST INSET



LEGEND:  
ADA RAMP LABEL - SEE SHEETS 12 - 13  
FOR GRADING DETAILS

CURVE TABLE			
CURVE #	DELTA	RADIUS	LENGTH
C1	51°31'39"	19.75	17.76
C2	90°18'04"	10.00	15.76
C3	89°20'09"	10.00	15.59
C4	85°28'41"	10.00	14.91
C5	93°49'22"	10.00	16.38
C6	88°49'36"	12.00	18.60

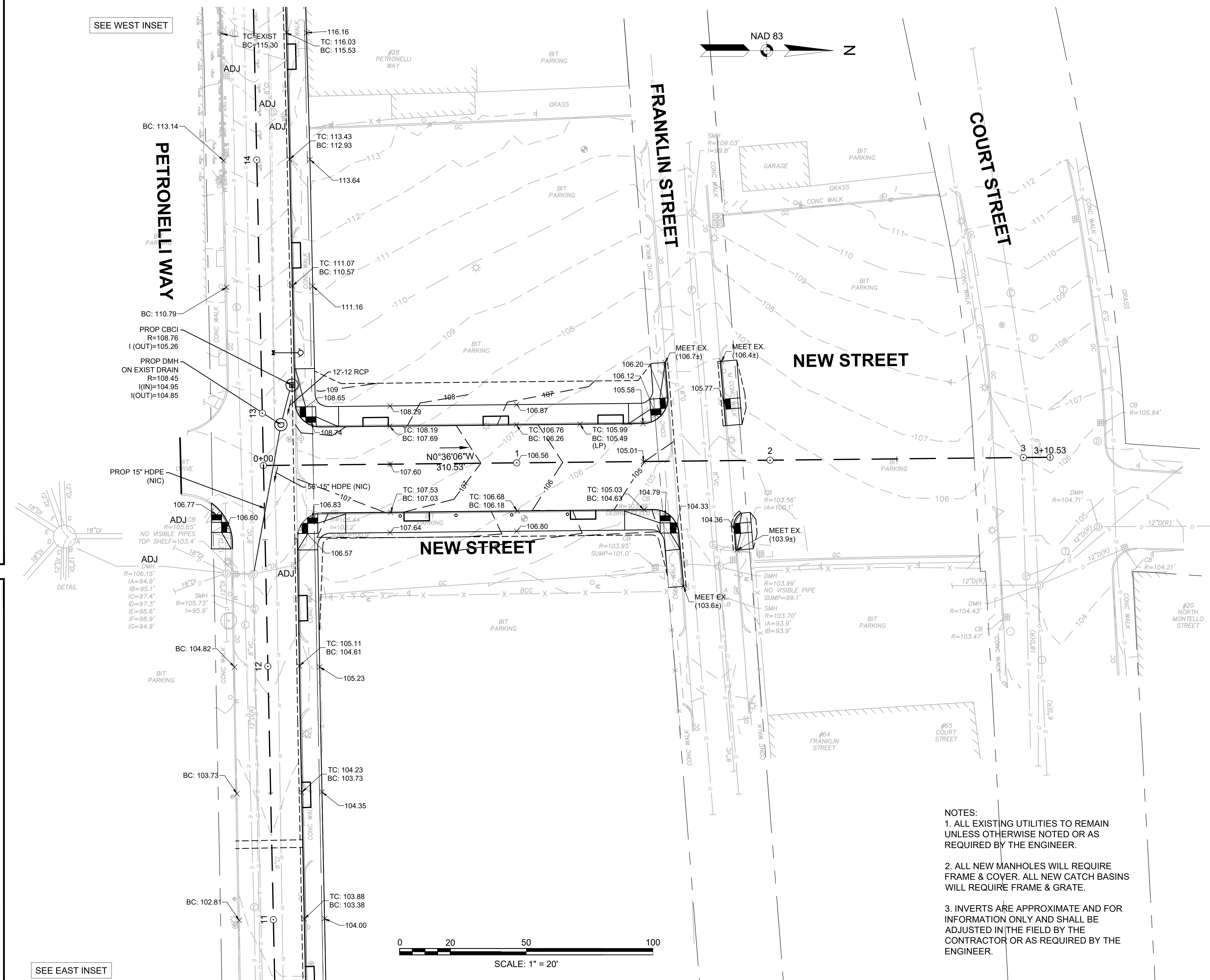
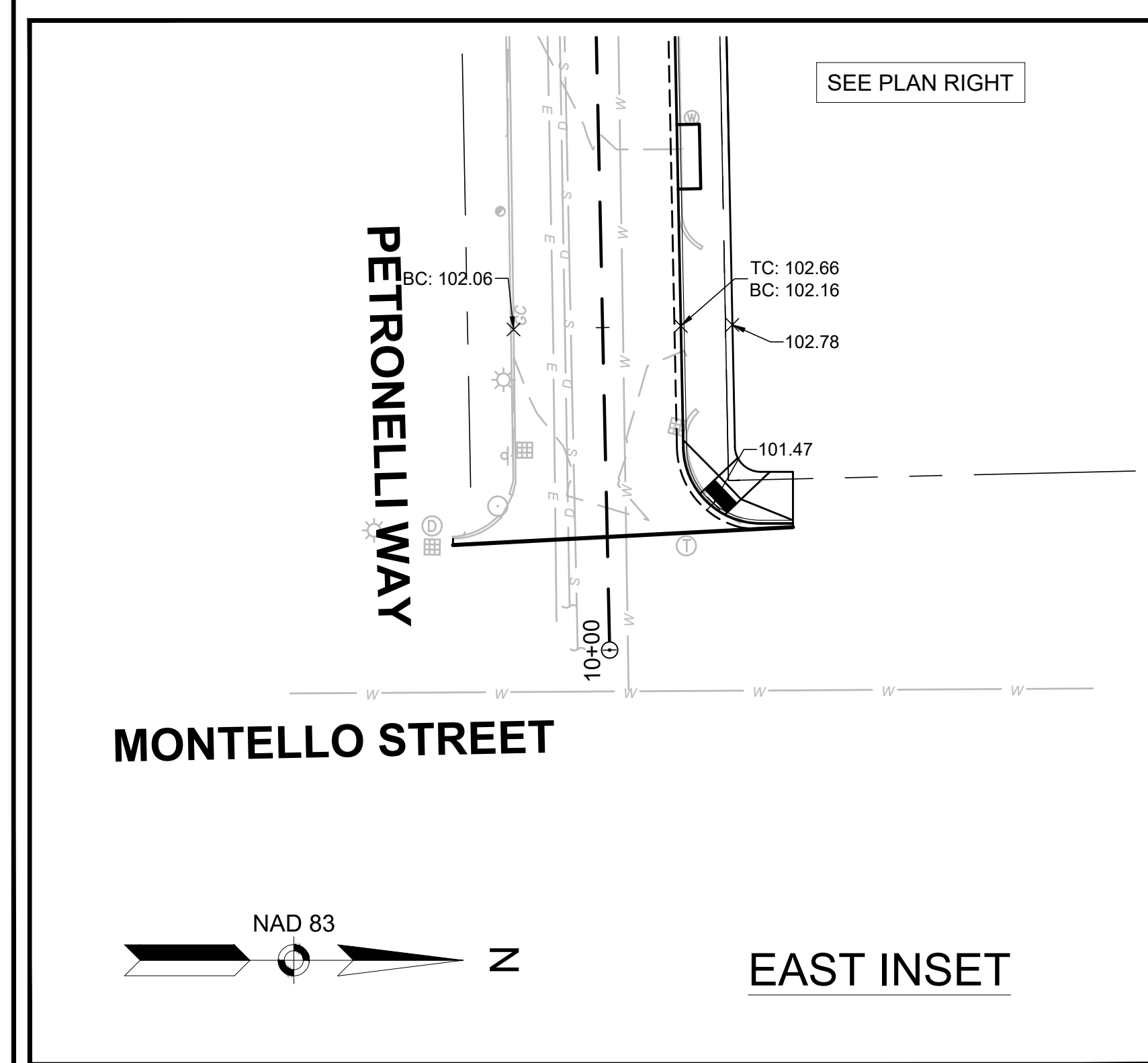
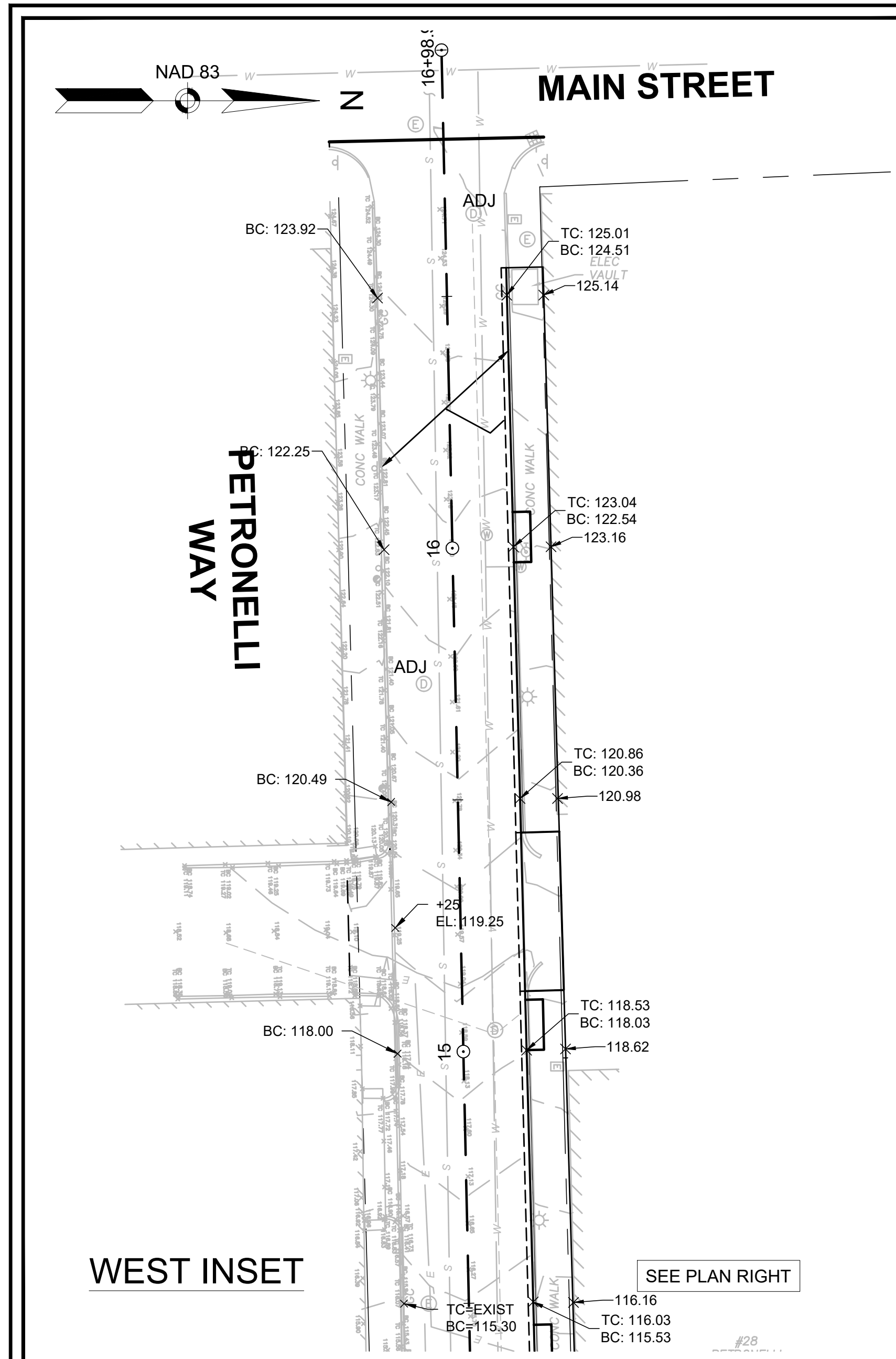


PETRONELLI WAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	10+00.00	2856318.081	787203.033		S88°44'54"W 698.95'	16+98.95	2856302.815	786504.252

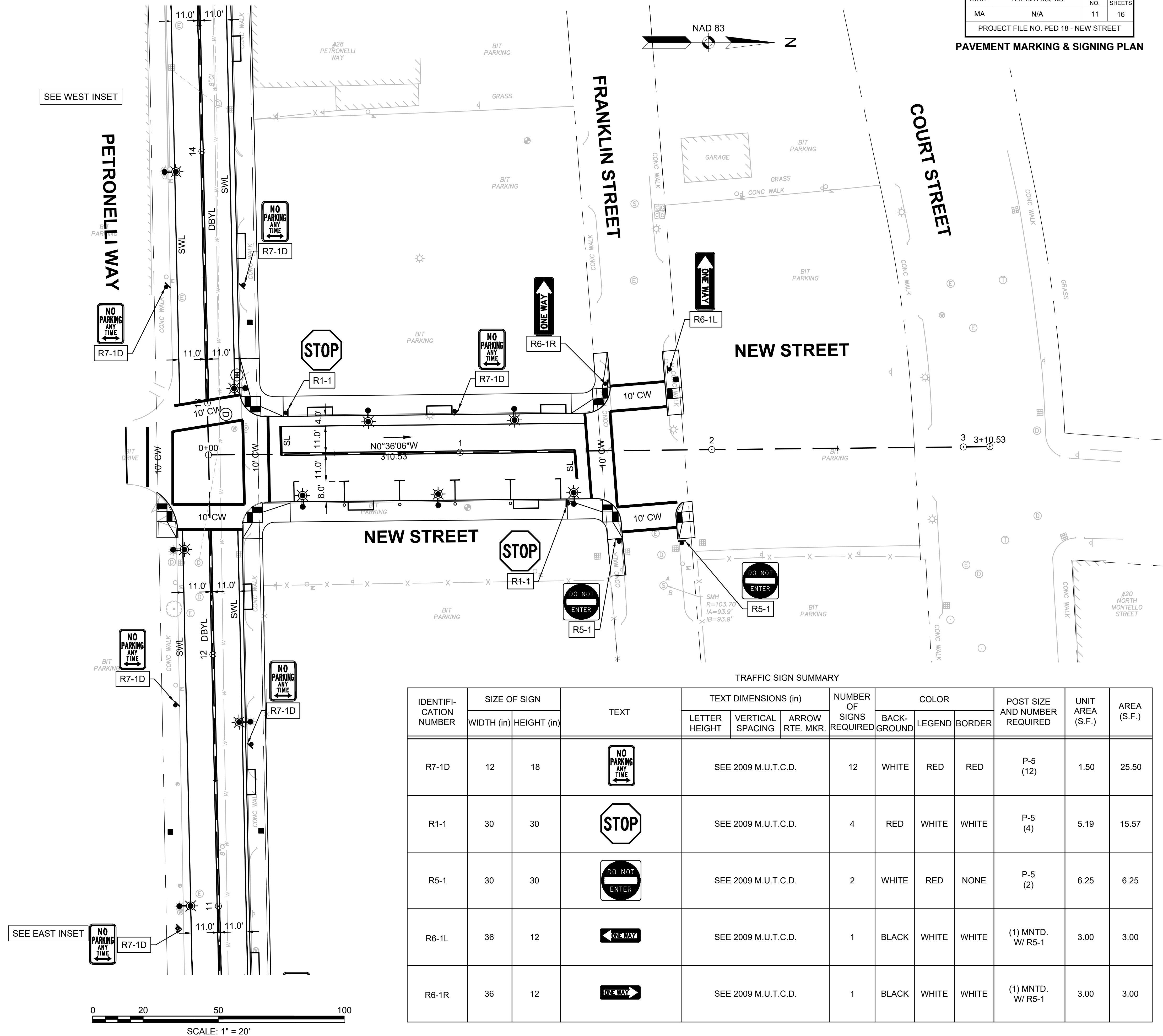
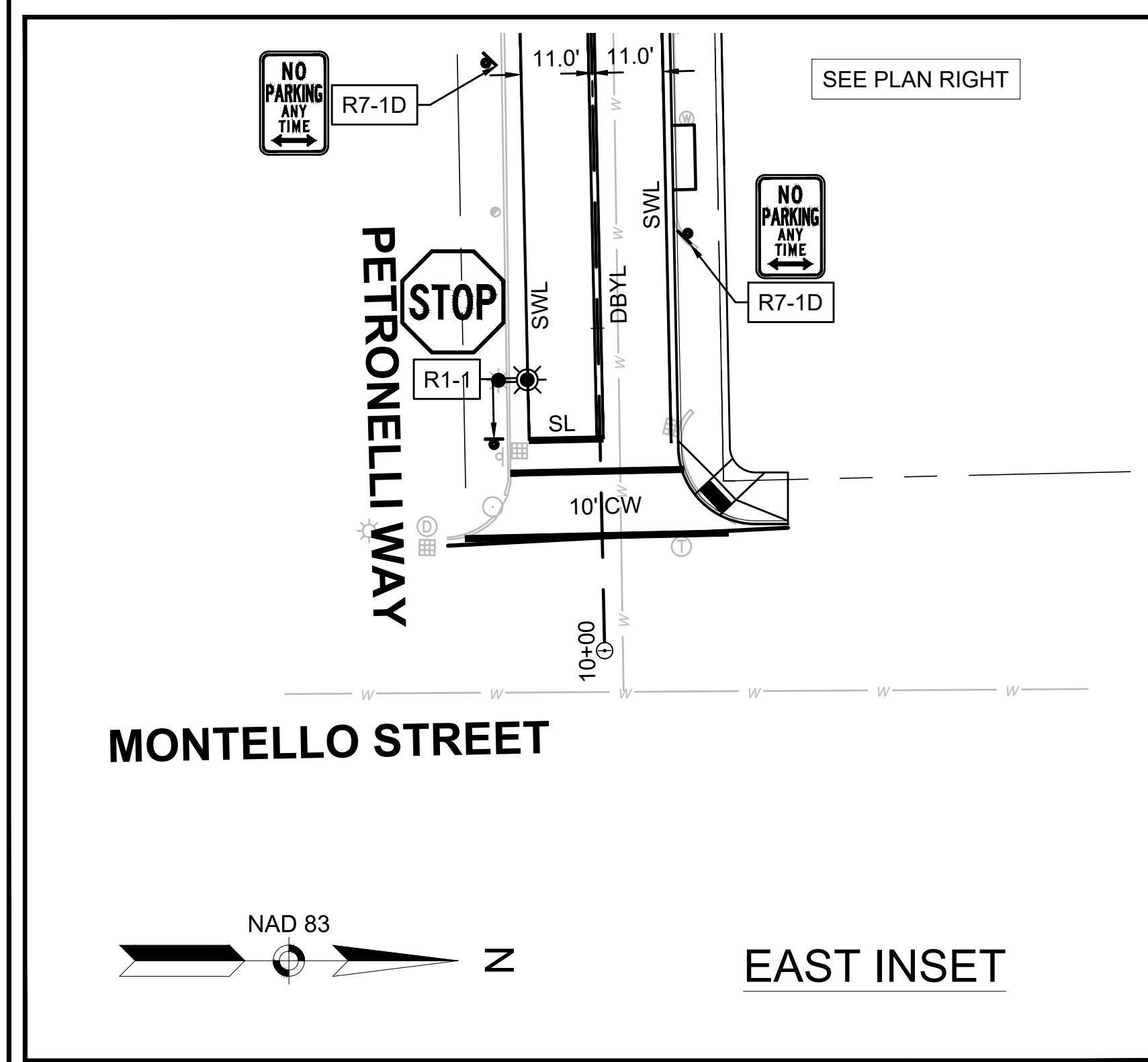
NEW STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L2	0+00.00	2856311.958	786923.768		N0°36'06"W 310.53'	3+10.53	2856622.474	786920.507

BROCKTON NEW STREET & PETRONELLI WAY			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	8	16
PROJECT FILE NO. PED 18 - NEW STREET			
CURB TIE & ALIGNMENT PLAN			

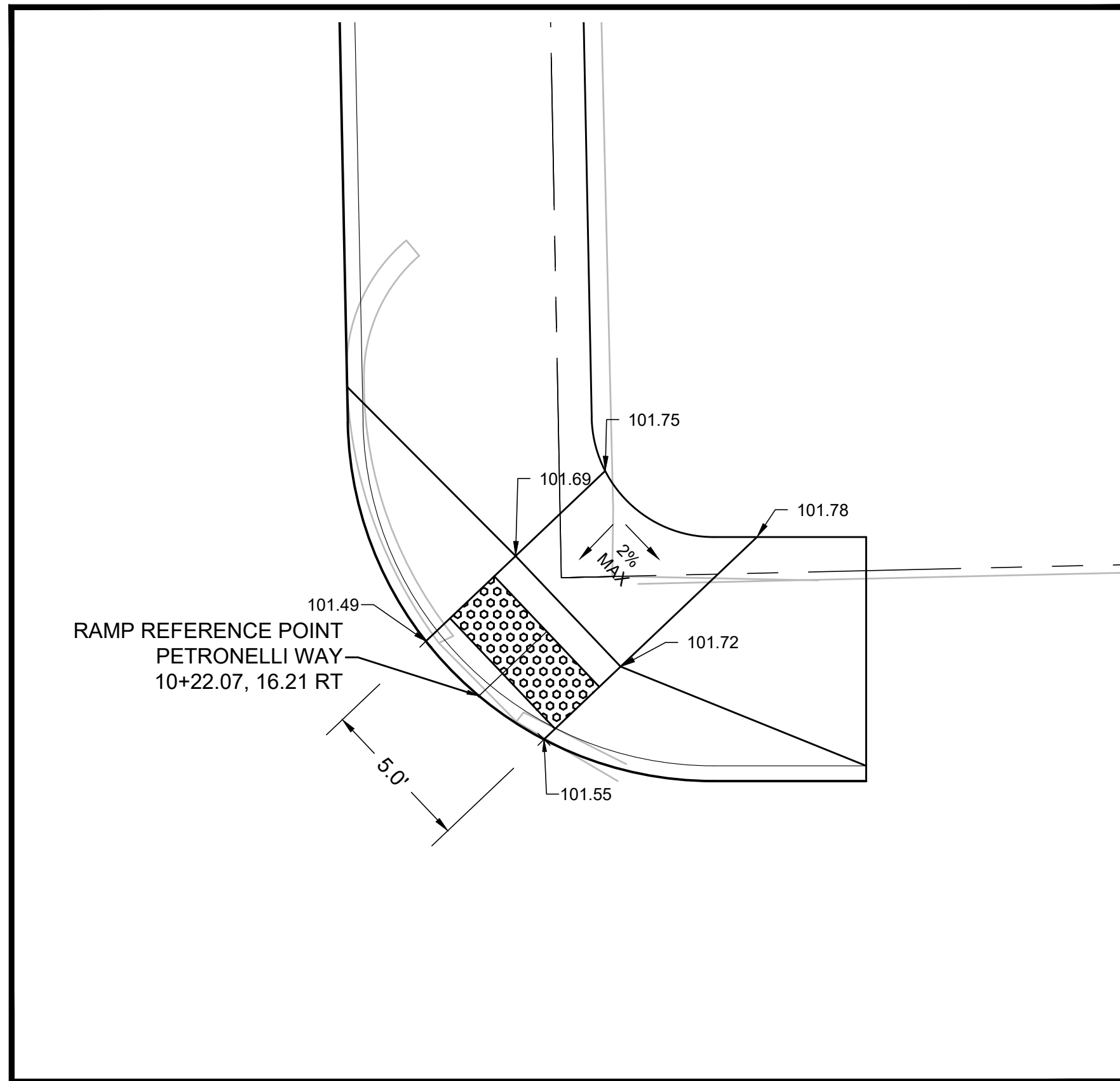




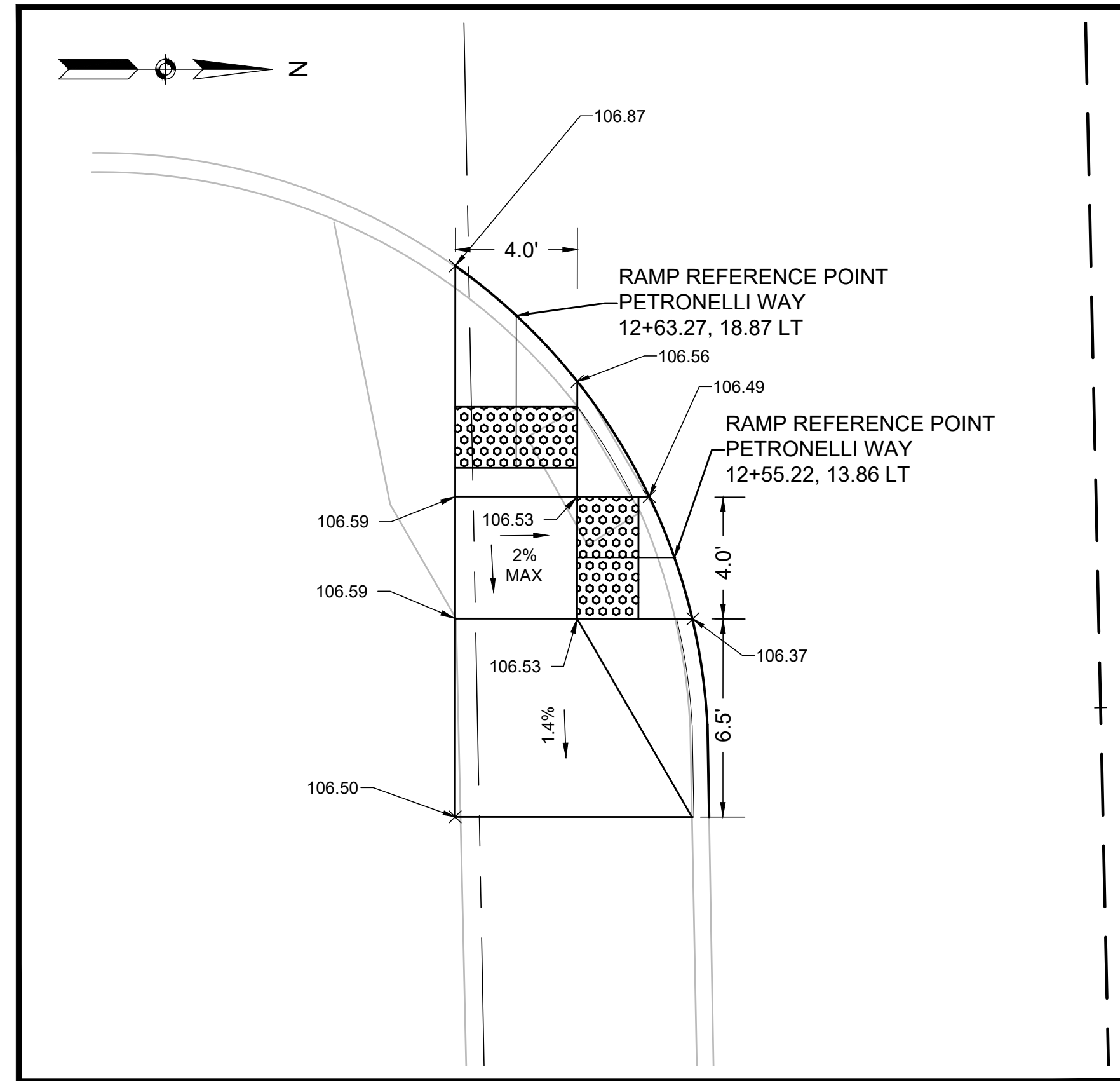




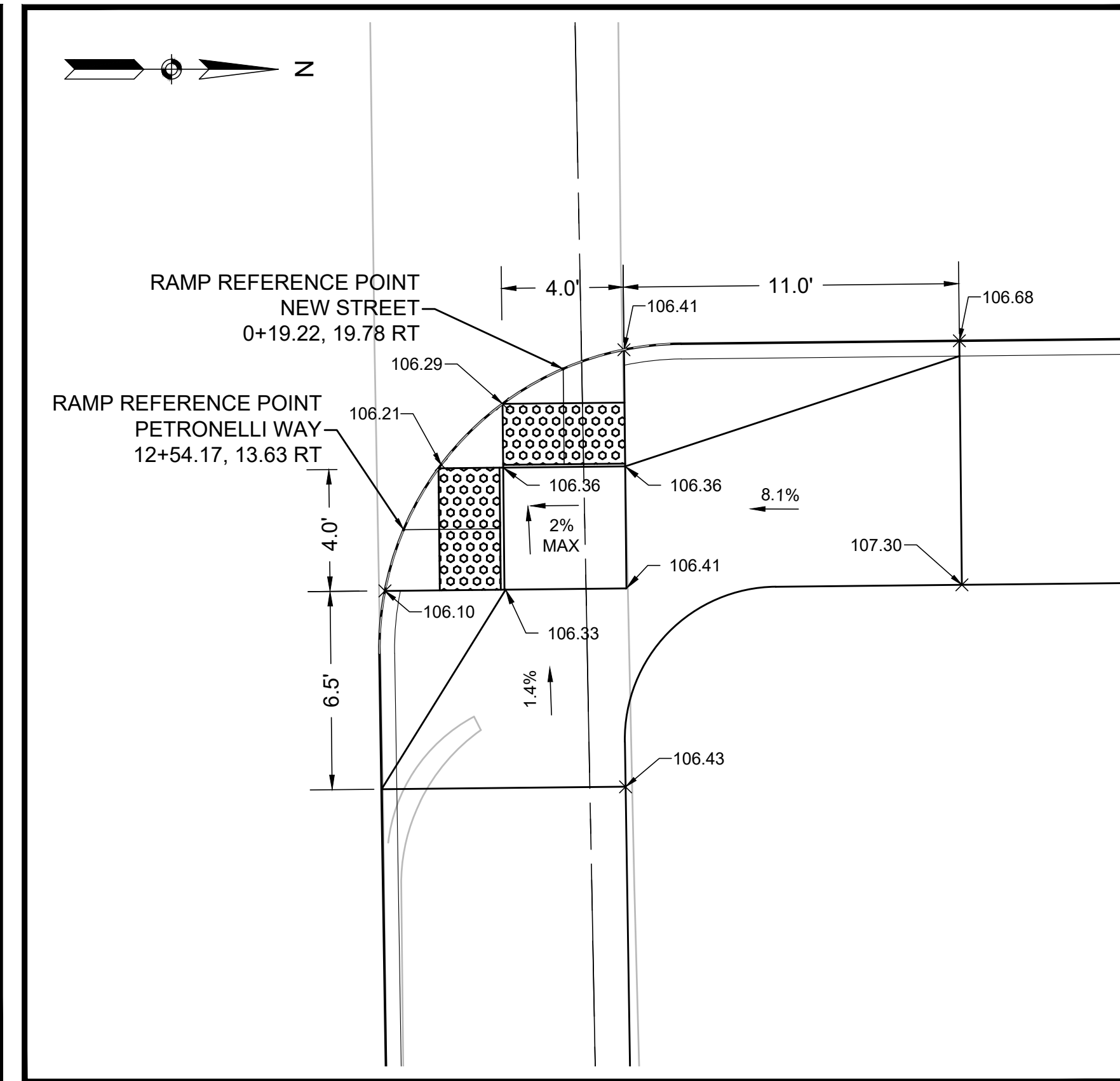




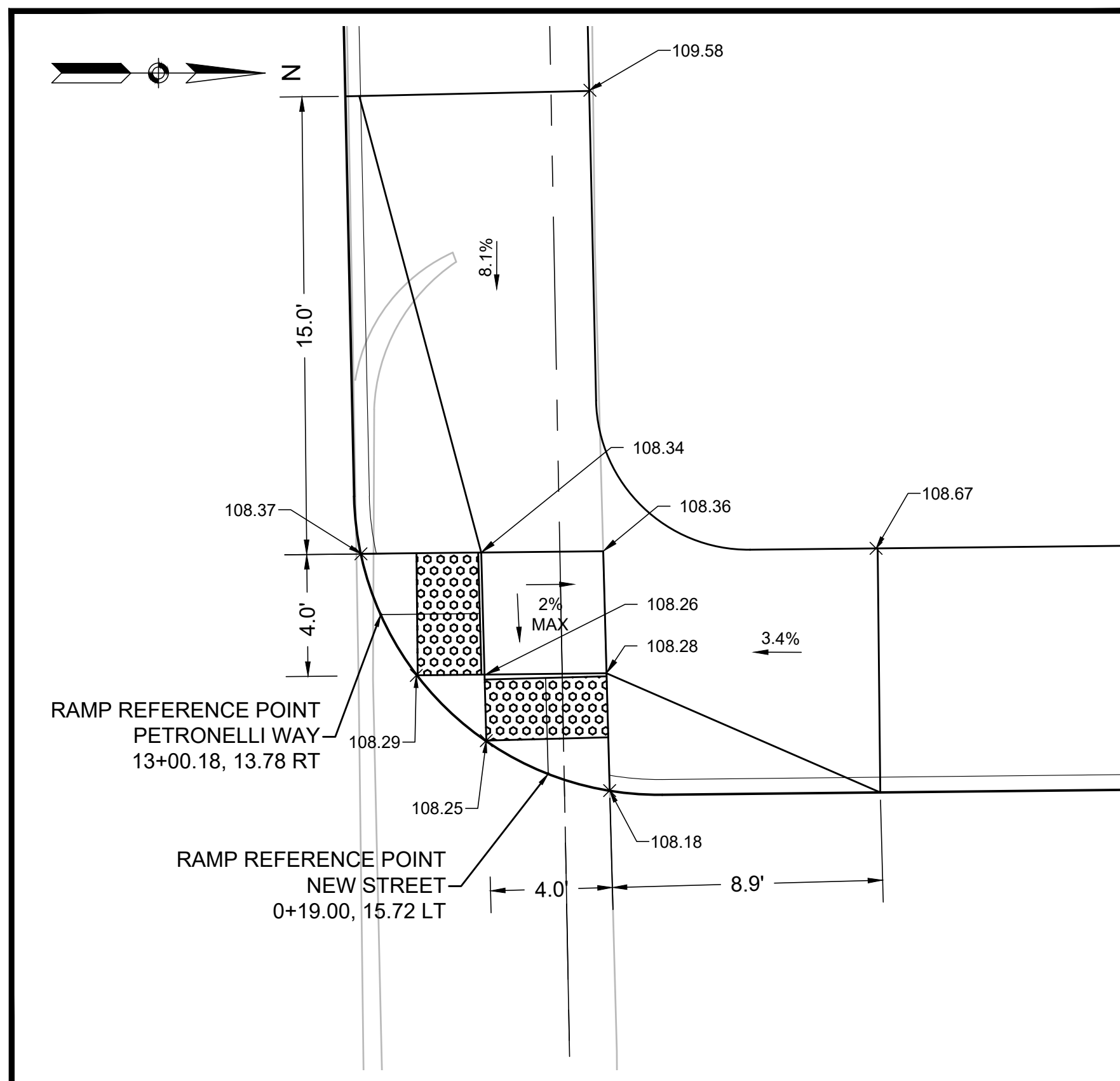
**RAMP A1**  
SCALE: 1"=4'



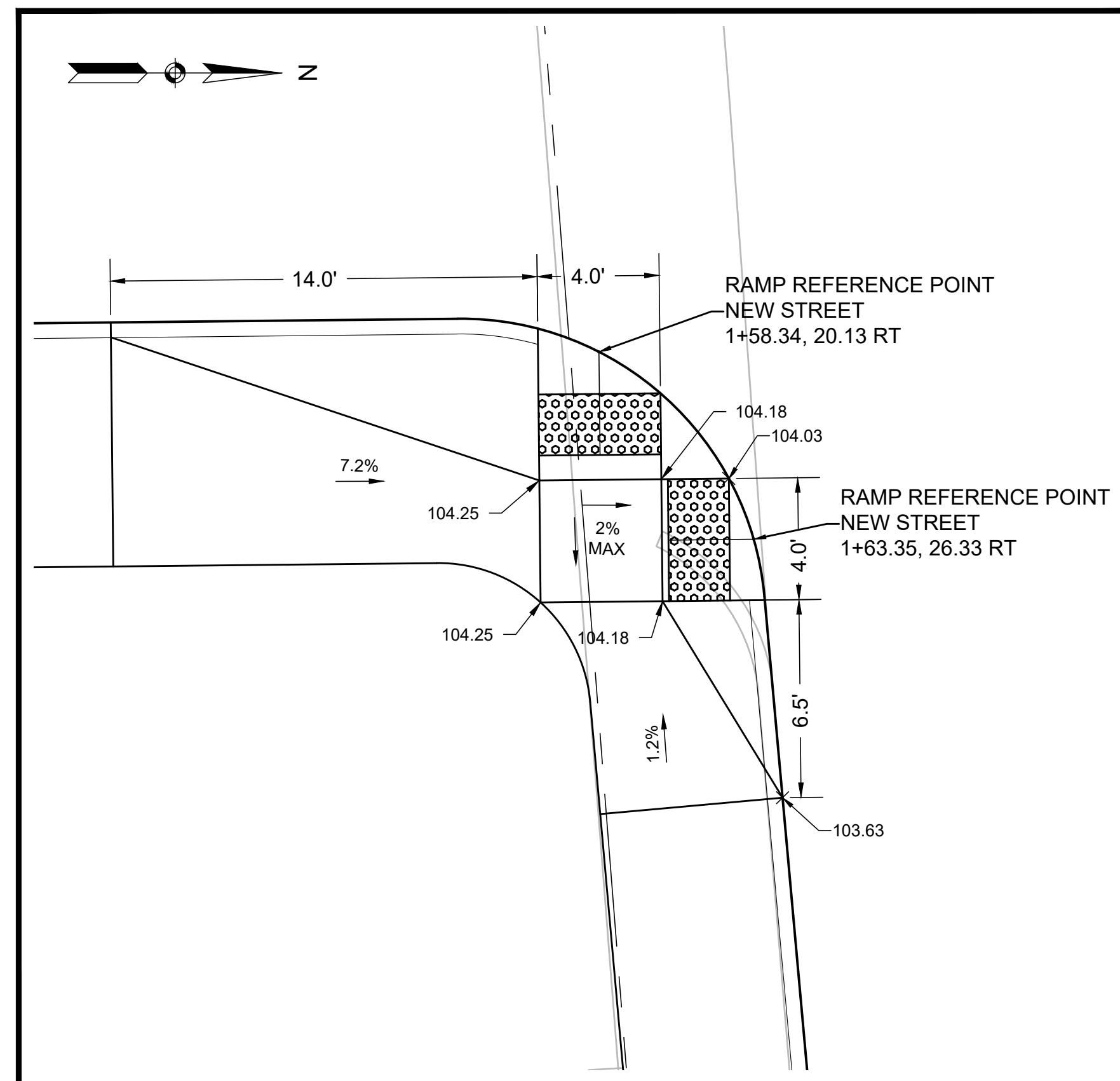
**RAMP X1**  
SCALE: 1"=4'



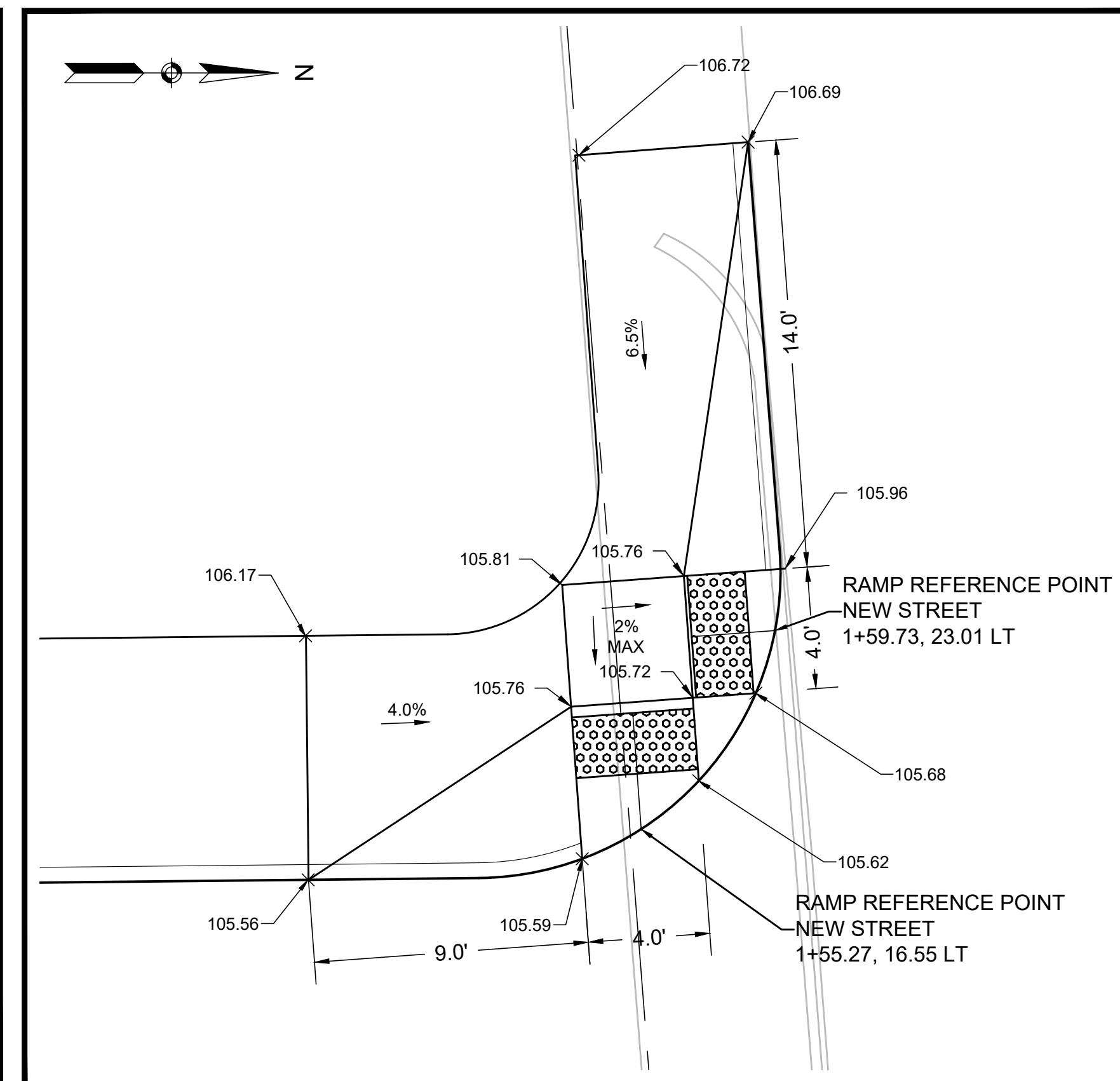
**RAMP K1**  
SCALE: 1"=4'



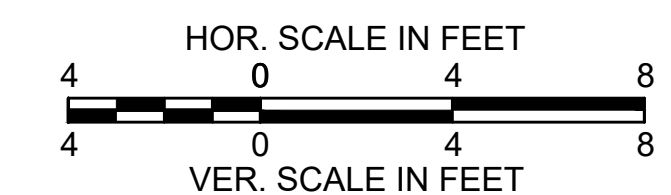
**RAMP K2**  
SCALE: 1"=4'

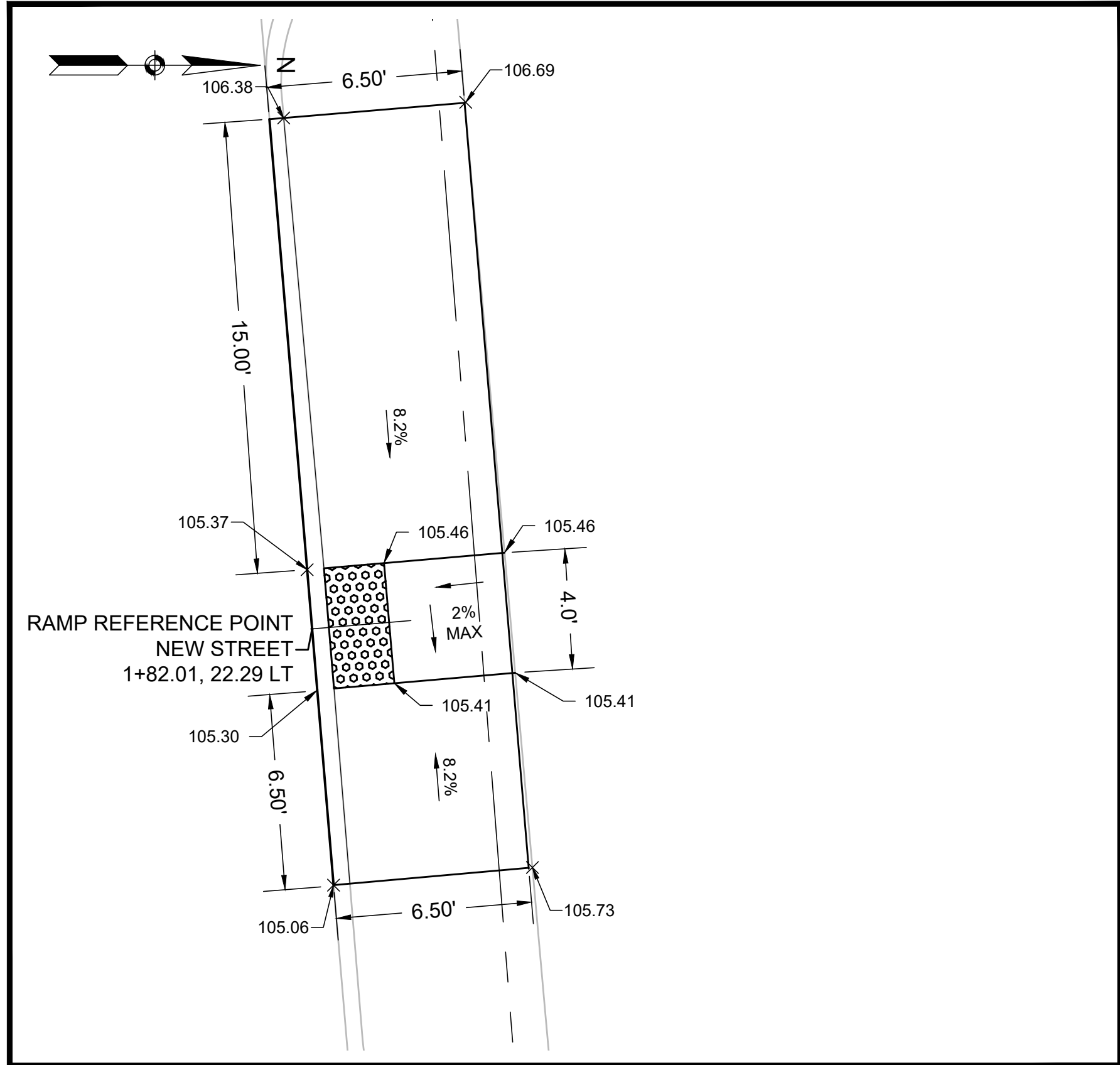


**RAMP K3**  
SCALE: 1"=4'

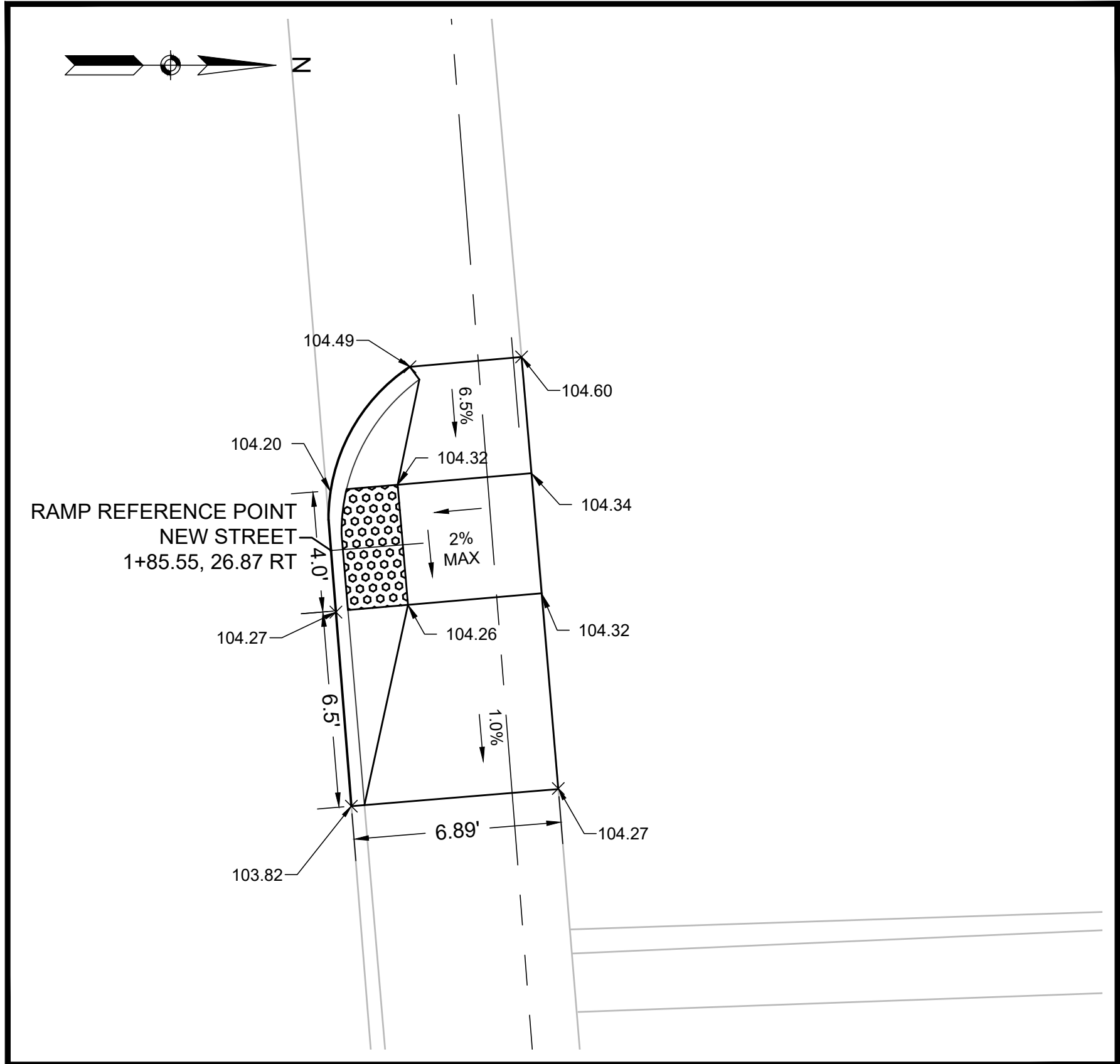


**RAMP K4**  
SCALE: 1"=4'





RAMP A2  
SCALE: 1"=4'



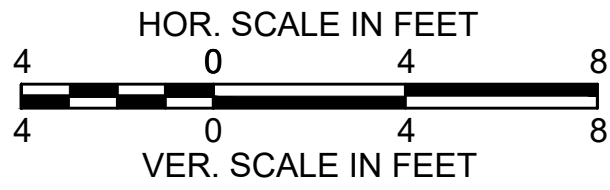
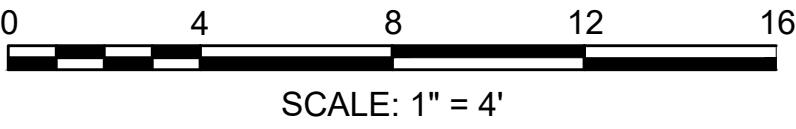
RAMP A3  
SCALE: 1"=4'

**BROCKTON**  
**NEW STREET & PETRONELLI WAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	13	16

PROJECT FILE NO. PED 18 - NEW STREET

**ADA ACCESS RAMP GRADING DETAILS**



**BROCKTON  
NEW STREET & PETRONELLI WAY**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	N/A	14	16
PROJECT FILE NO. PED 18 - NEW STREET			

## CONSTRUCTION DETAILS



24" DEPTH  
DETECTABLE  
WARNING PANEL  
(SEE E 107.6.5)

LANDING /TURNING AREA  
1.5% \* SLOPE FOR DRAINAGE

7.5% MAX

LEFT

RIGHT

7.5% MAX

7.5%\*

7.5% \* MAX

6' - 6"

LOW SIDE TRANSITION

6"

GRANITE CURB  
EDGE OF ROADWAY

ROADWAY DOWNGRADE

5'-0" MIN.

RAMP REFERENCE POINT

HSL

HIGH SIDE TRANSITION

1.5%\*

W

4'-0" MIN

LEVEL\*

4'-0" MIN

4'-0" MIN

W1=RAMP LENGTH

1.5%\*

7.5%\*

SIDEWALK

FOUNDATION

ROADWAY

SECTION A-A

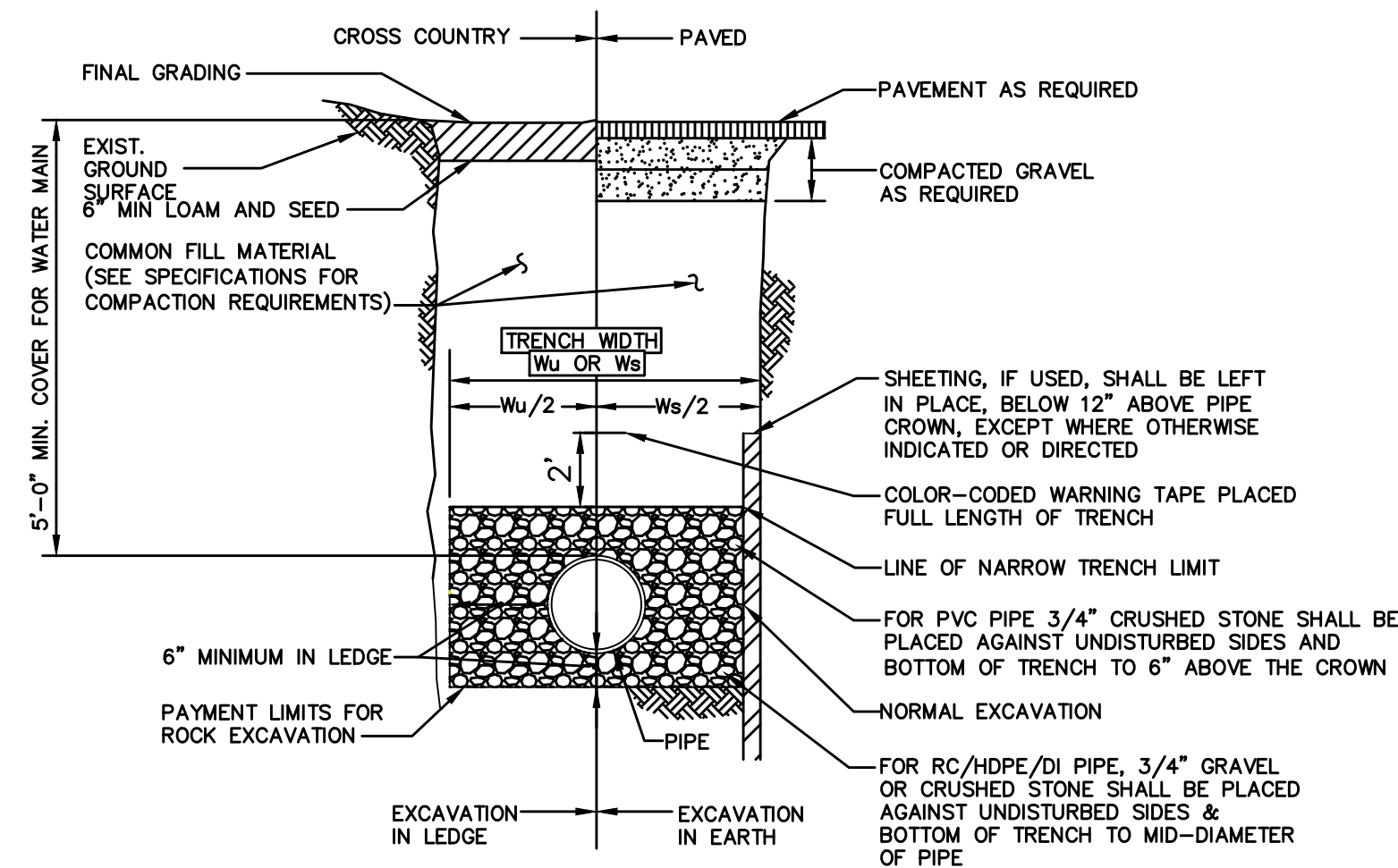
DETECTABLE  
WARNING PANEL  
(SEE E 107.6.5R)

NOTES:

1. SEE CONSTRUCTION STANDARD E 107.2.0
2. \* CONSTRUCTION TOLERANCE  $\pm 0.5\%$
3. \*\* SEE CONSTRUCTION STANDARD E 107.9.0

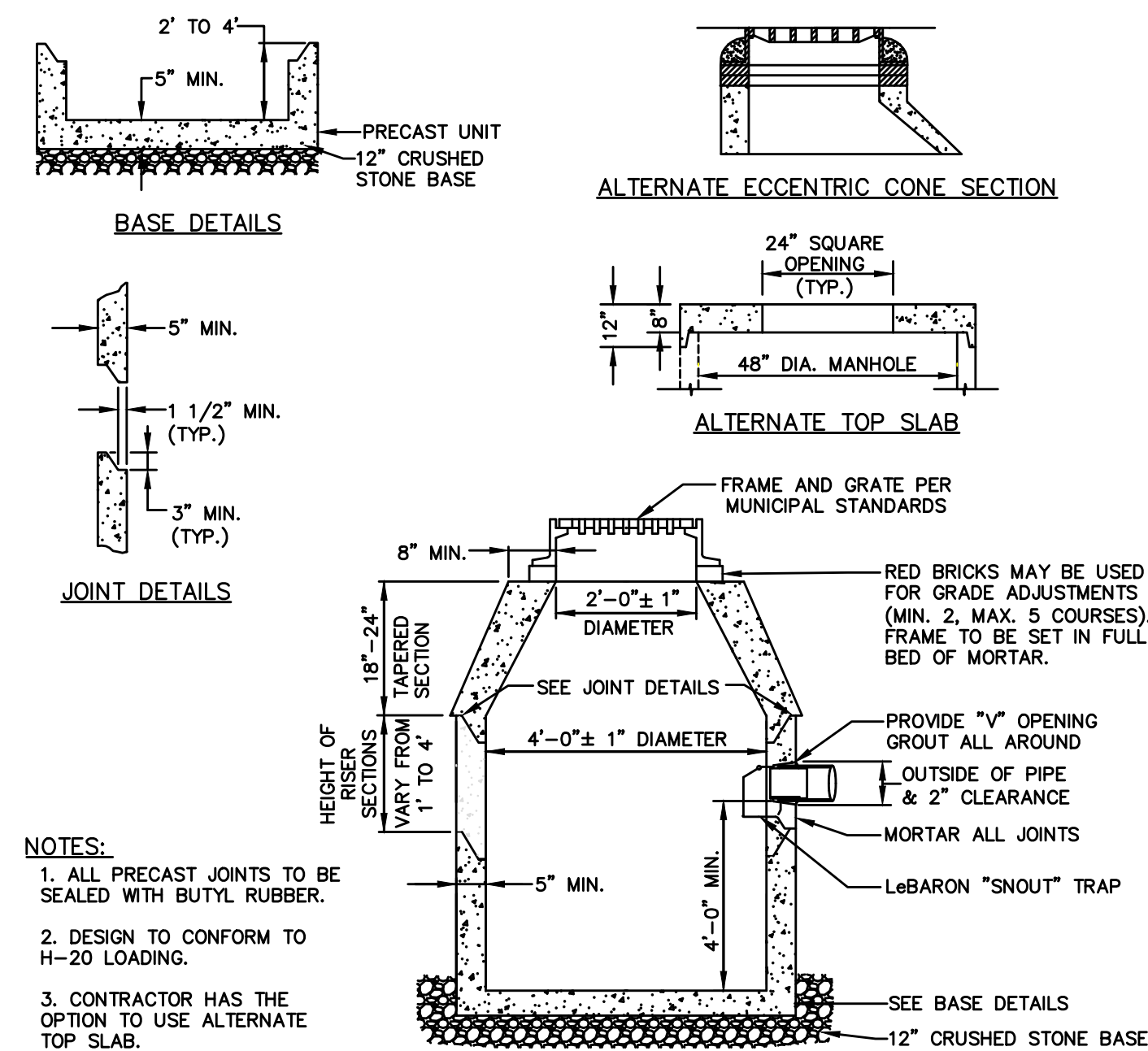
### TYPICAL PIPE TRENCH SECTION

SCALE: NONE



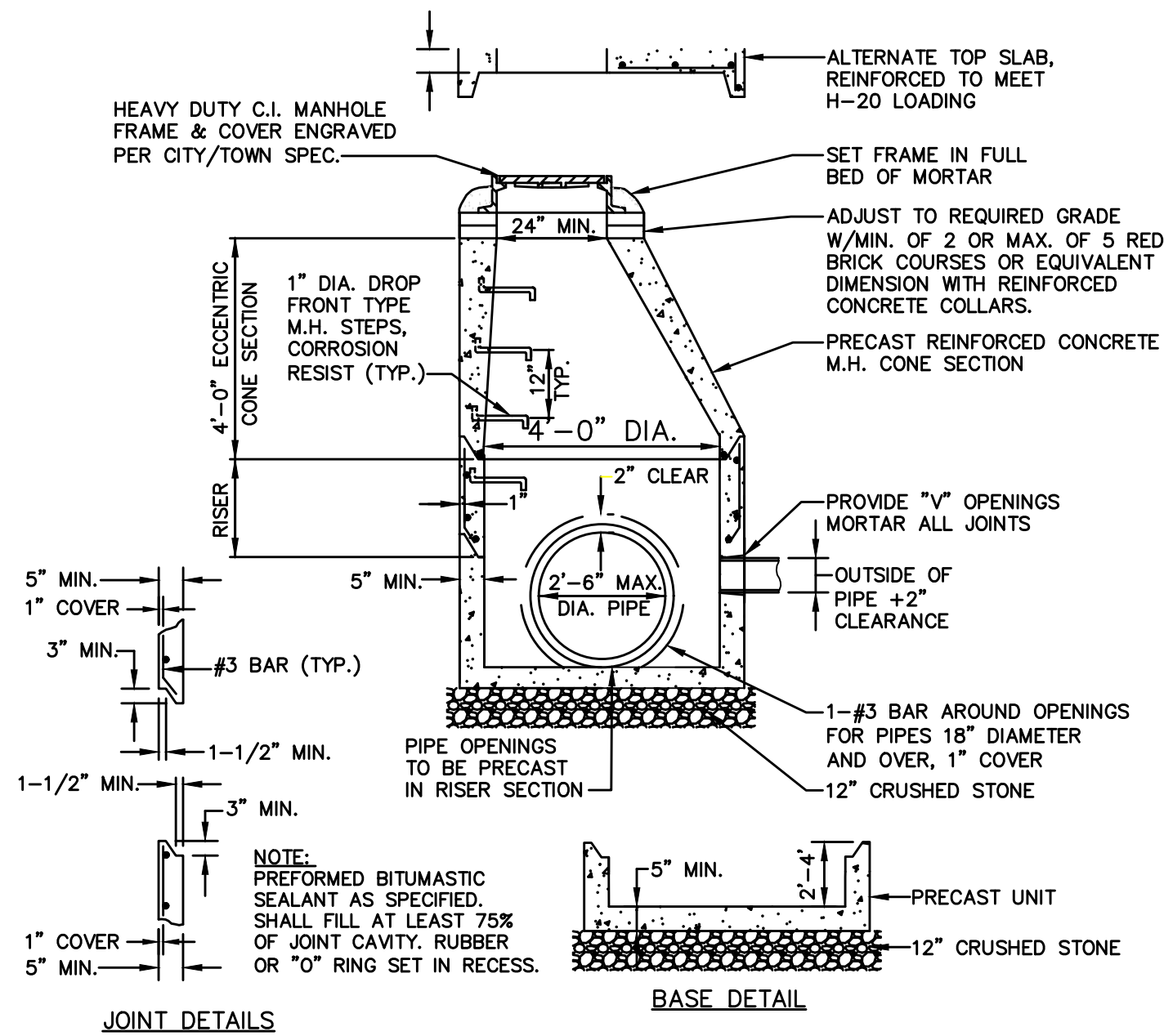
TRENCH WIDTH, Ws OR Wu		
D DIAMETER OF PIPE	Wu UNSHEETED	Ws SHEETED
12" AND SMALLER	3'-0"	4'-2"
15"	3'-2"	4'-4"
18"	3'-6"	4'-8"
21"	3'-10"	5'-0"
24"	4'-2"	5'-4"
27"	4'-6"	5'-8"
30"	4'-10"	6'-0"
36"	5'-6"	6'-8"
42"	6'-2"	7'-4"
48"	6'-10"	8'-0"

TRENCH WIDTH DATA



## PRECAST CONCRETE CATCH BASIN

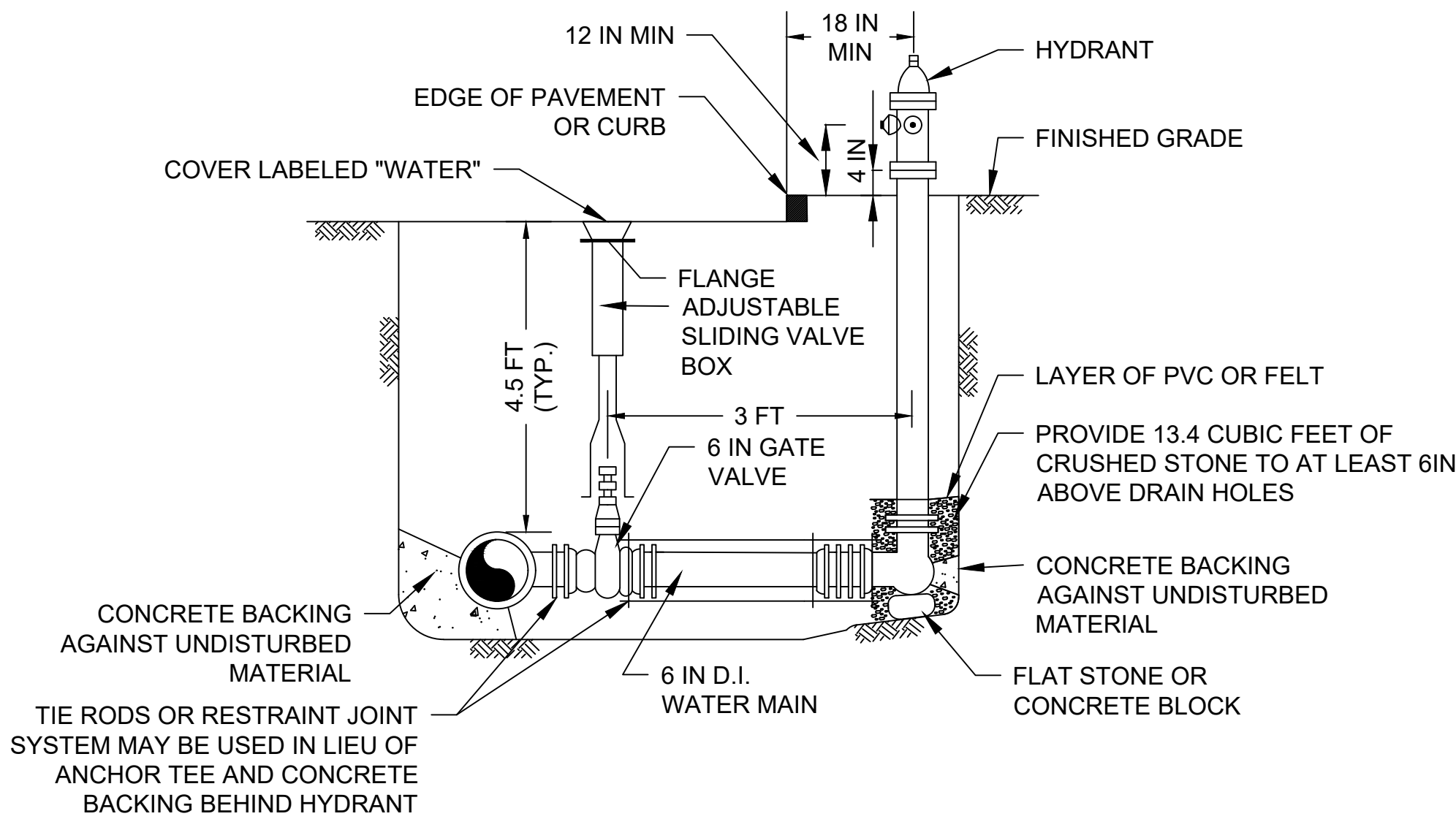
SCALE: NONE



## PRECAST CONCRETE DMH

SCALE: NONE





HYDRANT AND VALVE  
NOT TO SCALE

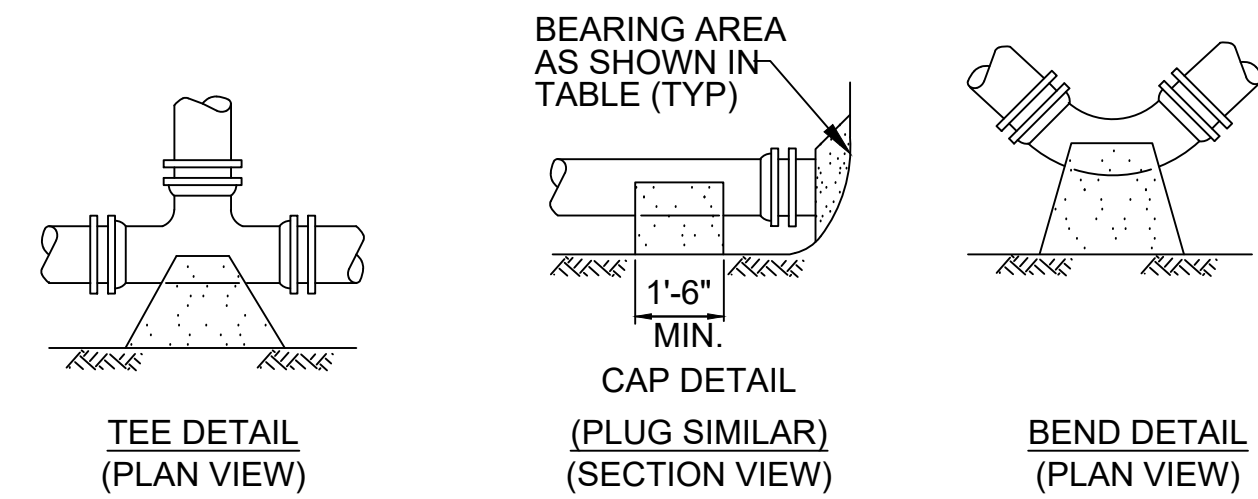
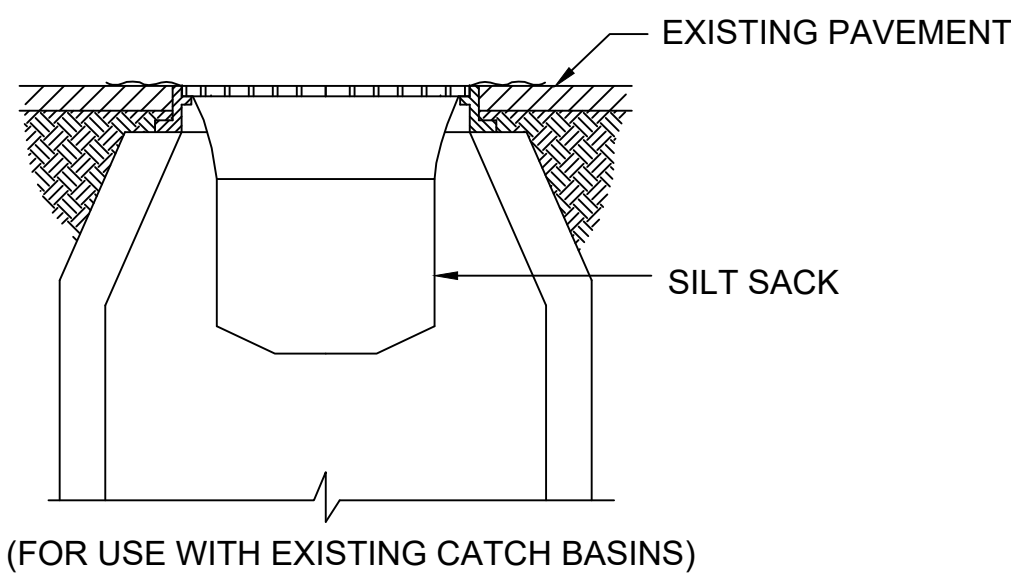


TABLE OF CONCRETE THRUST RESTRAINT MINIMUM BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL FOR WATER MAIN FITTINGS				
SIZE OF MAIN	90° BENDS, TEES, CAPS AND PLUGS	45° BENDS AND WYES	22-1/2° BENDS	11-1/4° BENDS
6", 8"	5	4	2	2
10", 12"	12	9	5	2

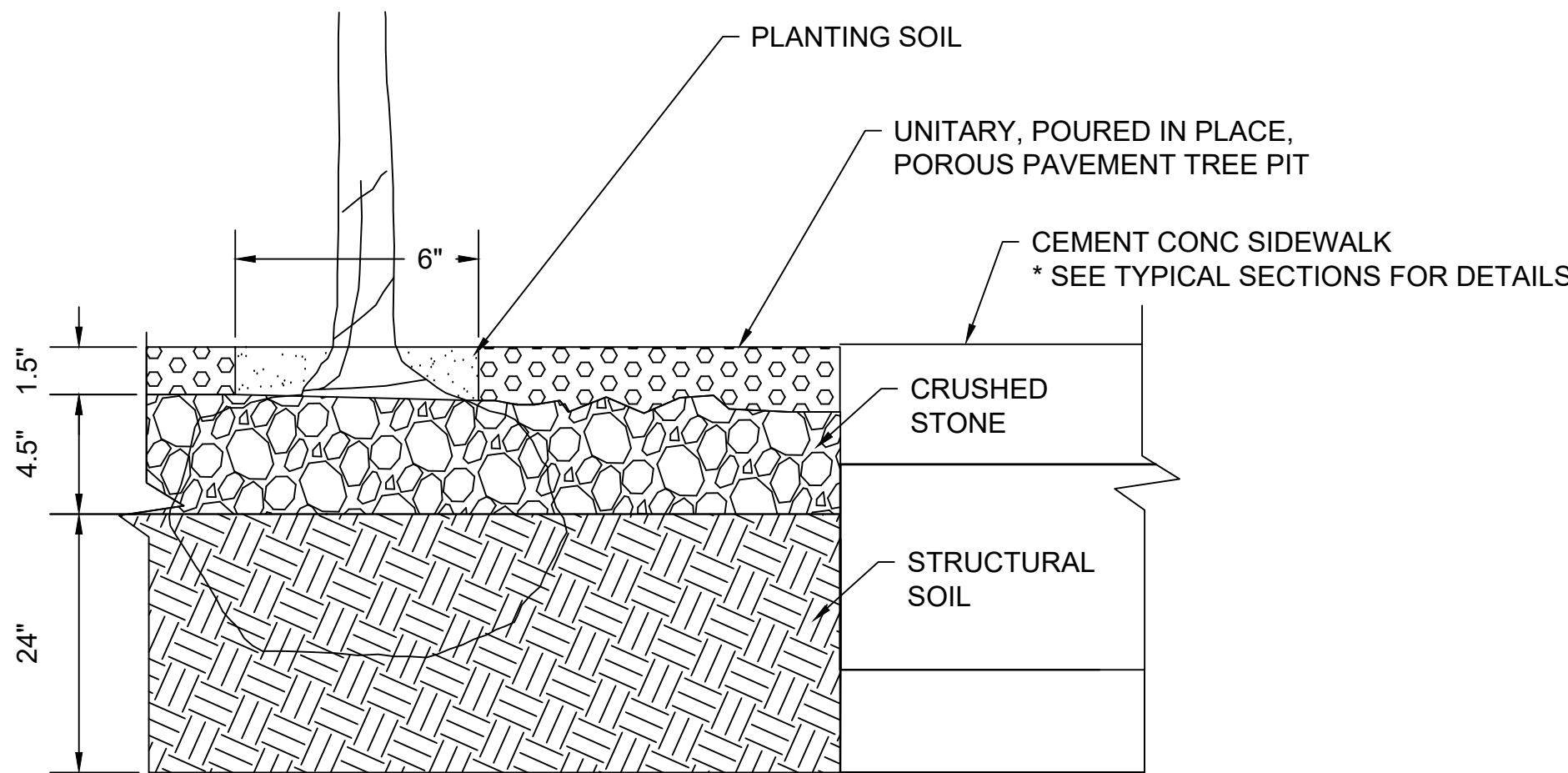
- NOTES:
- CONCRETE THRUST RESTRAINT SHALL ONLY BE USED WHERE OTHER MEANS OF RESTRAINT ARE NOT FEASIBLE.
  - CONTRACTOR SHALL USE CARE TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS

CONCRETE THRUST BLOCK  
RESTRAINT FOR FITTINGS  
NOT TO SCALE

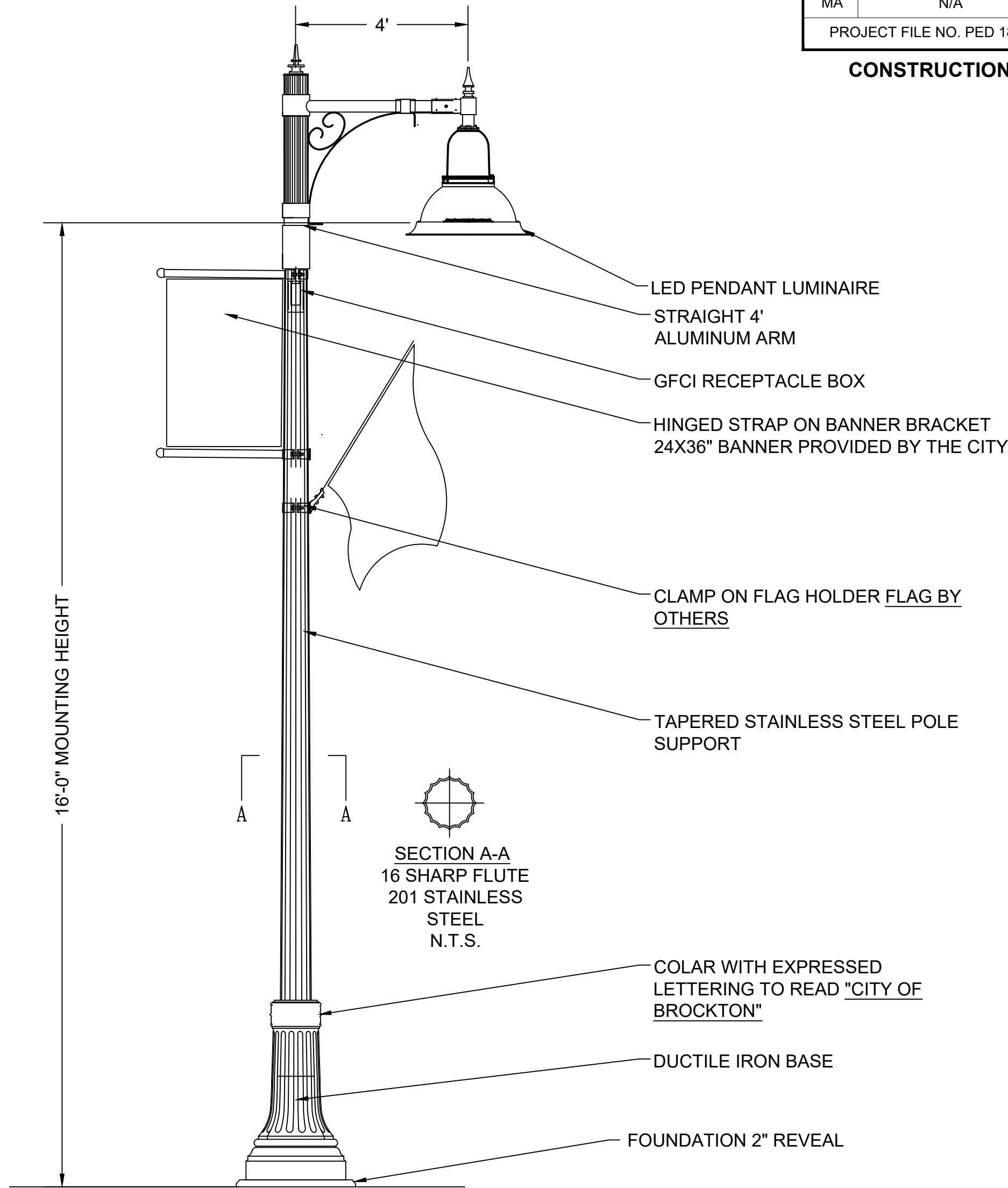


NOTE: SILT SACKS TO BE PLACED IN ALL CATCH BASINS IN THE VICINITY OF NEW CONSTRUCTION. CATCH BASINS ARE TO BE PROTECTED AS SHOWN, WITH MINIMUM WEEKLY MAINTENANCE, OR AS REQUIRED AND REPLACED IF NECESSARY.

SILT SACK INLET  
PROTECTION DETAIL  
NOT TO SCALE



POROUS PAVEMENT TREE PIT  
NOT TO SCALE

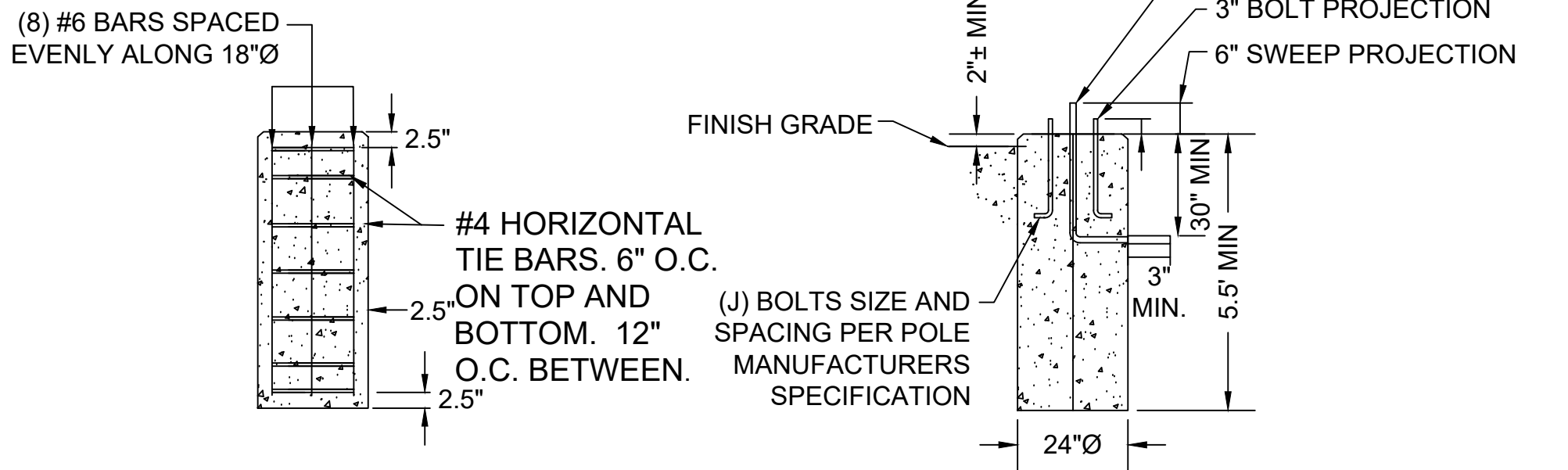


16' LIGHTPOLE AND LUMINAIRE  
NOT TO SCALE

NOTES:

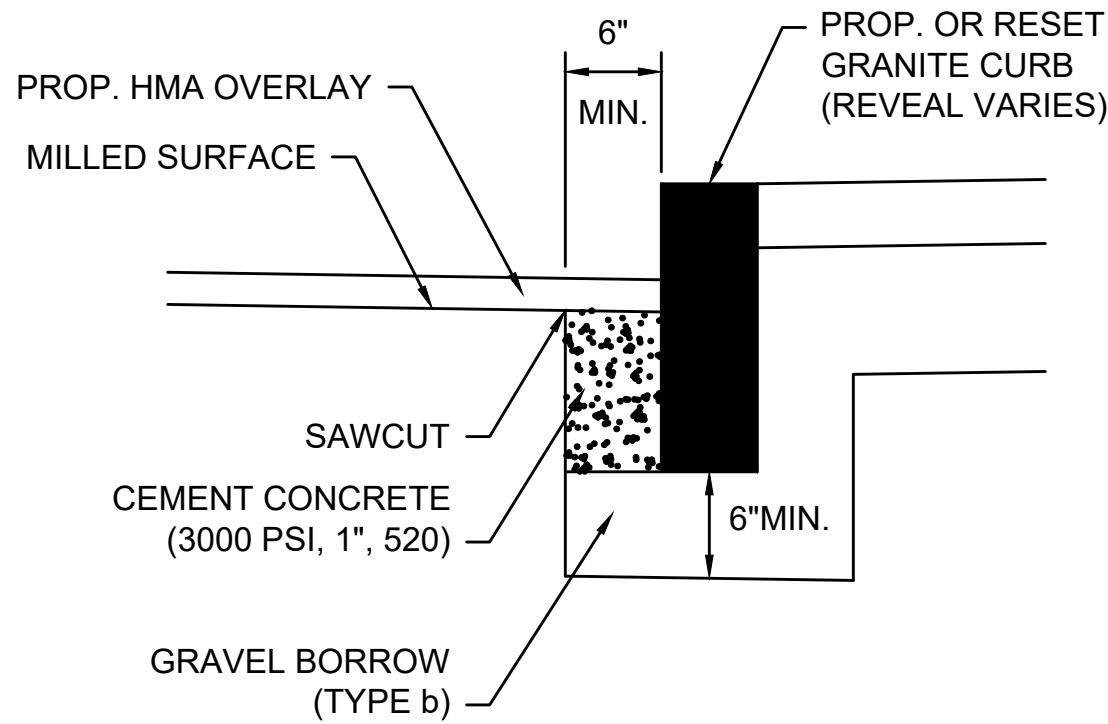
CEMENT CONCRETE LIGHT POLE FOOTING PROVIDED FOR DESIGN INTENT ONLY CONTRACTOR MUST SUBMIT SHOP DRAWING STAMPED BY MASSACHUSETTS PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL BY ENGINEER.

ANCHOR BOLTS AND PATTERN AS REQUIRED BY THE LIGHT POLE MANUFACTURER. (TEMPLATE TO BE SUPPLIED BY POLE MANUFACTURER)



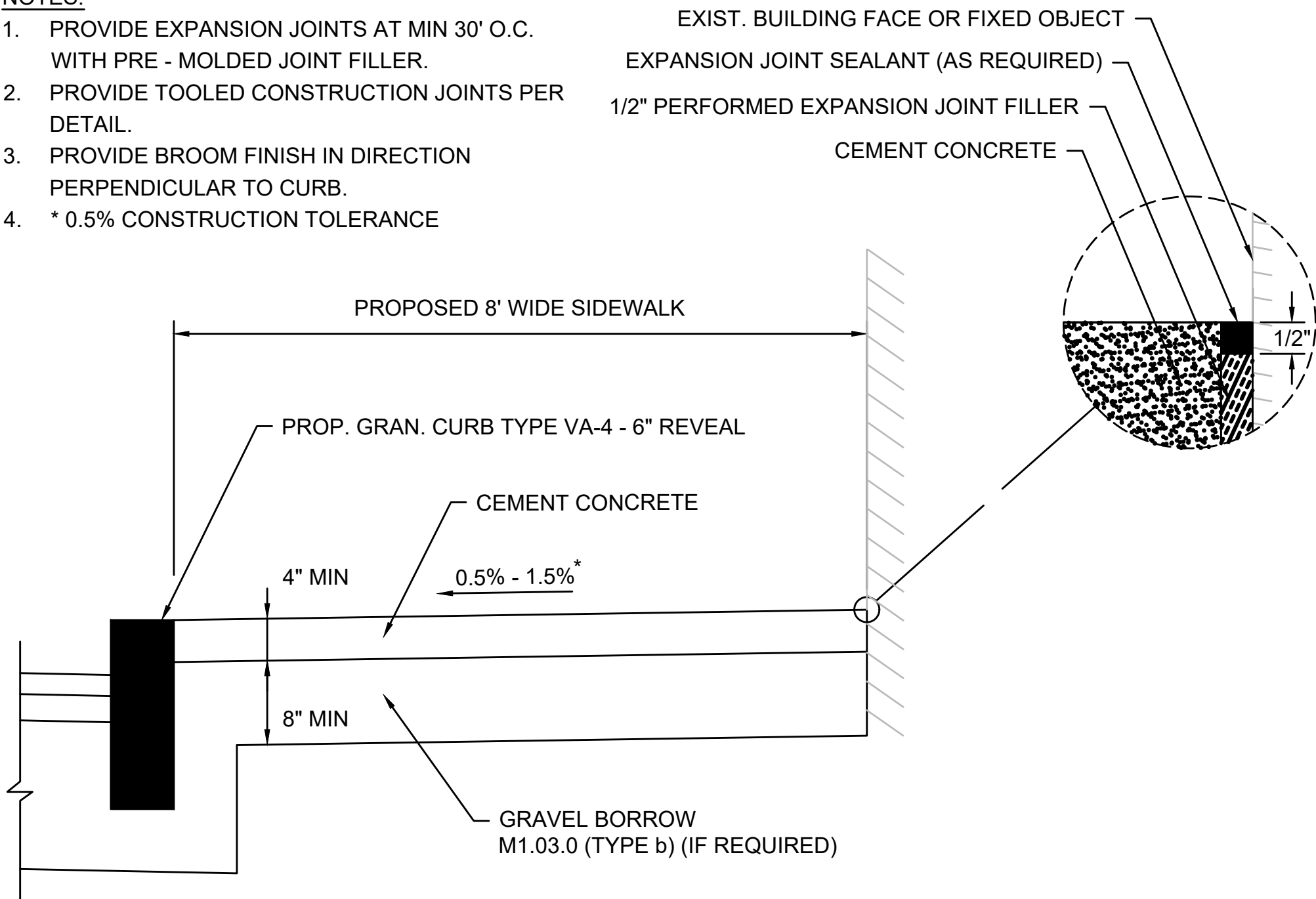
CEMENT CONCRETE LIGHT POLE FOOTING  
NOT TO SCALE

- NOTES:
- SAWCUT 6" FROM CURB LINE AND REMOVE EXISTING PAVEMENT AND GRAVEL. REPLACE WITH CEMENT CONCRETE.
  - ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS MAY BE USED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

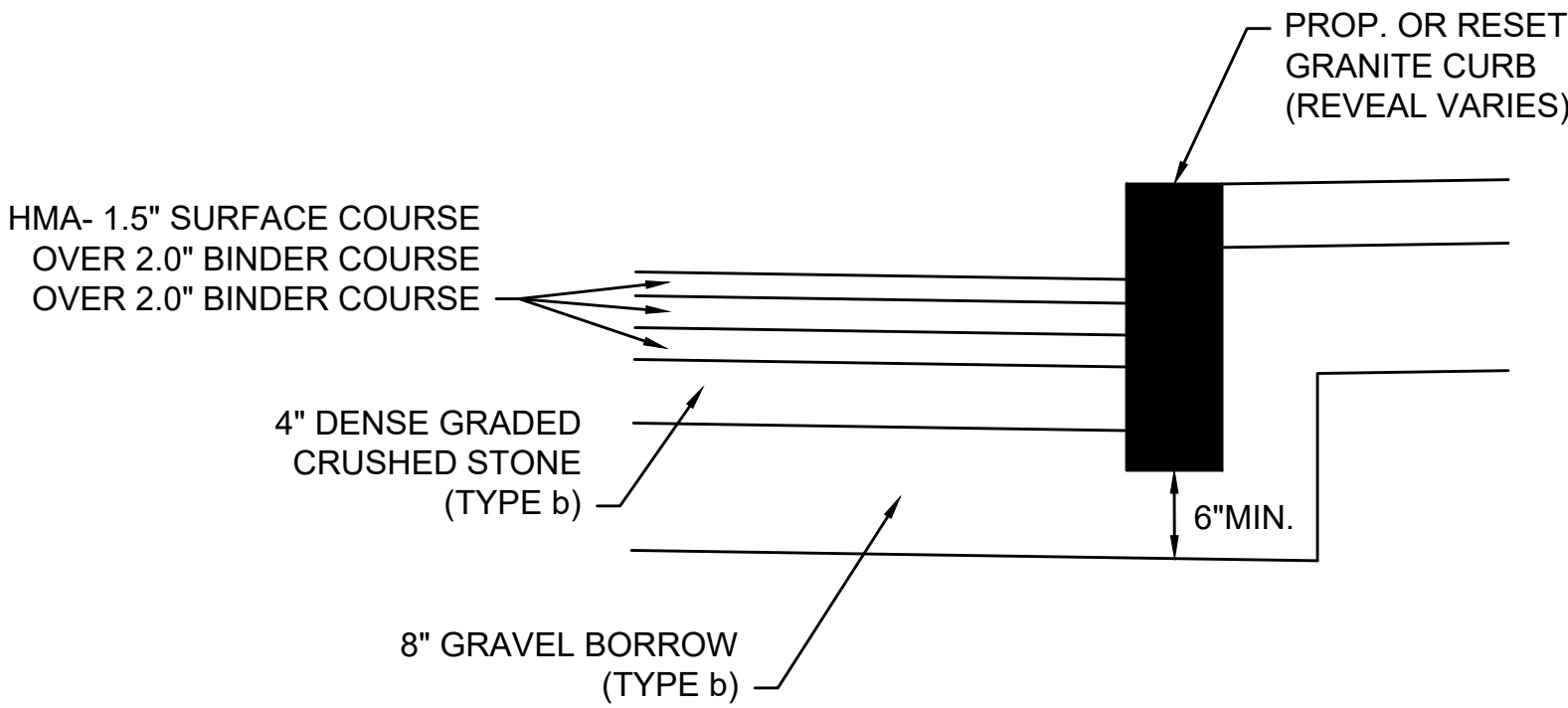


GRANITE CURB INSTALLATION IN PAVEMENT MILLING AND OVERLAY AREAS  
NOT TO SCALE

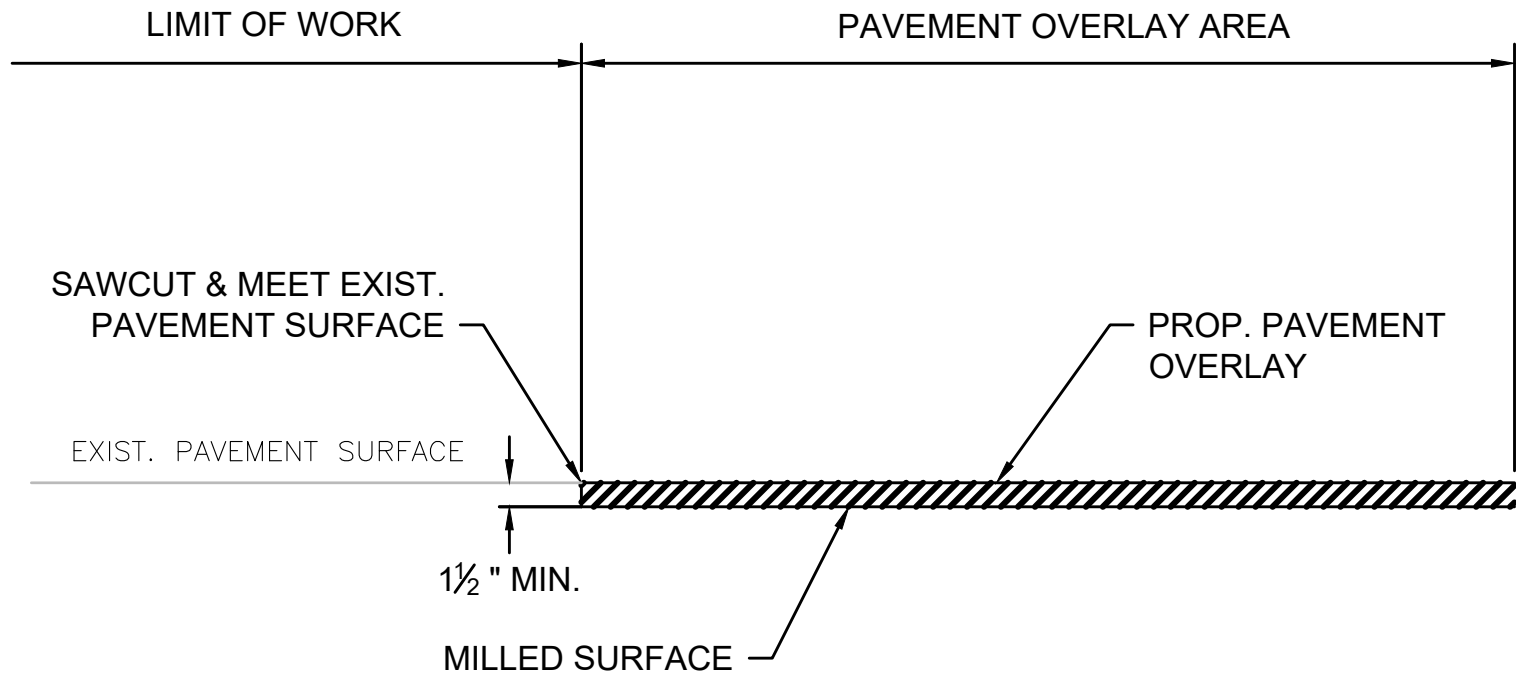
- NOTES:
- PROVIDE EXPANSION JOINTS AT MIN 30' O.C. WITH PRE - MOLDED JOINT FILLER.
  - PROVIDE TOOLED CONSTRUCTION JOINTS PER DETAIL.
  - PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
  - \* 0.5% CONSTRUCTION TOLERANCE



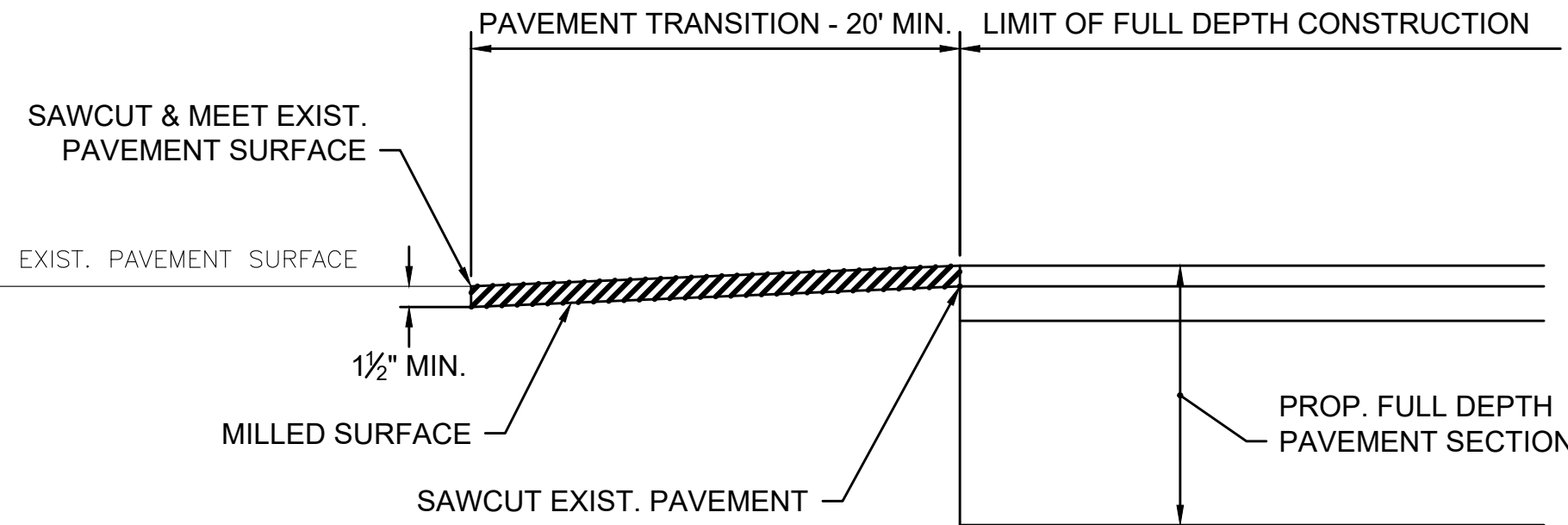
CEMENT CONCRETE SIDEWALK WITH GRANITE CURB  
NOT TO SCALE



GRANITE CURB INSTALLATION IN FULL DEPTH RECONSTRUCTION PAVEMENT AREAS  
NOT TO SCALE



PAVEMENT OVERLAY TRANSITION AT LIMITS OF WORK  
NOT TO SCALE



FULL DEPTH PAVEMENT TRANSITION AT LIMITS OF WORK  
NOT TO SCALE